

MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XXXIX. No. 21.
WEEKLY.

BALTIMORE, JUNE 13, 1901.

\$4.00 A YEAR.
SINGLE COPIES, 10 CENTS.

Manufacturers' Record.

RICHARD H. EDMONDS, President.
THOMAS P. GRASTY, Vice-President
OFFICE: MANUFACTURERS' RECORD BUILDING,
BALTIMORE.

PUBLISHED EVERY THURSDAY BY THE
Manufacturers' Record Publishing Co.

RICHARD H. EDMONDS,
Editor and General Manager.

THOMAS P. GRASTY,
General Staff Correspondent.

SUBSCRIPTION, - - - \$4.00 a Year.
TO FOREIGN COUNTRIES, - - 25s. 6d. a Year.

BALTIMORE, JUNE 13, 1901.

COPY FOR ADVERTISEMENTS.

Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week.

For the first issue in the month we should receive copy by Friday Morning of the week preceding.

In a letter to the Manufacturers' Record Messrs. McLean & McLean of Lumberton, N. C., write:

We realize that no other agency is doing as much for the South as the Manufacturers' Record. It ought to be in the hands of every business man in the South, beginning with the man who owns a one-horse farm and ending with the man who controls the largest manufacturing interests.

In an article on competition in iron and steel making in the current issue of the Engineering Magazine Mr. E. Phillips, referring to the plans of the Dominion Steel & Iron Co. and its works at Sydney, Cape Breton, announces in most casual manner that six steamers are being built to carry coal between Lewisburg and Boston. Is there not in this probability food for thought on the part of Southern coal owners, who certainly have not forgotten the incidents of a great tariff discussion six or seven years ago?

President Fish's Letter.

Mr. Stuyvesant Fish, president of the Illinois Central Railroad Co., has written a letter to Dr. R. B. Fulton, chancellor of the University of Mississippi, which is destined to have an important bearing upon the material future of the South. Mr. Fish was invited to make an address at the commencement of the institution. He was unable to do so, but wrote instead the letter which is published on another page of this week's Manufacturers' Record. Mr. Fish is a freeholder, a taxpayer in Mississippi, and has for nearly twenty-five years put hard work into the development of the State. Even did his letter not in itself show an intimate knowledge of the past and present of the State, it would have the stamp of the authority of experience, and would carry weight with thoughtful men. But Mr. Fish's proved personal interest in all that affects the best interests of the State gives his words a significance that cannot be disregarded

either by men of Mississippi or by those of other parts of the South to which they are equally applicable.

Workmen a Factor in Competition.

The London Iron and Coal Trades Review, which has generally maintained a conservative attitude in the discussion of the outlook for English iron and steel, publishes in a recent issue the statement of a gentleman whom it holds to be "one of the greatest authorities in this country, whose name, if we should take the liberty to mention it, would be accepted as sufficient to establish the almost unique value of his statements and opinions." This gentleman says that of all that has been written about American competition in steel, he has not seen that the comparatively small difference between the prices of Bessemer pig-iron in America and in Great Britain has been noticed, and he argues that as regards pig-iron, American works should have no considerable advantage over English manufacturers. He adds:

They have unquestionably the very great advantage of having an enormous market at their doors, enabling them to roll continuously large quantities of one size or section, and, to my knowledge, this advantage has been increased by the combinations of the last few years.

They have the further advantage of greater command of capital, and more energy devoted to the conduct of their operations.

But, assuming my premises are correct, there is no insuperable obstacle to our holding our own in the trade of the world.

Our workmen in the steel trade undoubtedly are at least as capable as the American. They do not work with as much energy or such long hours as in America, which very greatly increases the cost of production. But do our employers or foremen make any serious efforts to improve them?

The men naturally are much guided by their leaders, and I have seen little evidence of the employers seriously attempting to convince the leaders of the necessity of more united action between the masters and men. In many cases the unionist officials are regarded rather as enemies.

Then there is the great question of combination, much more difficult to handle in this country than in America. But where there are half a dozen works in any district in this country, all making a variety of sizes, costs could be enormously reduced if the orders could be concentrated, and mills could be kept for several shifts on one size.

I have shown that as regards Bessemer pig-iron this country should now be at no great disadvantage as regards American competition; as regards other descriptions our position is still stronger.

There is no district in America which, taking its position as regards shipment into consideration, can compete with Cleveland, Lincolnshire and Northamptonshire, and if the process of converting the irons of those districts into steel, now adopted in the Midlands and by some firms in Cleveland, is a success—of which there is little doubt—we should be able to compete successfully with any country.

I do not look upon the big steel "combine" in America as a menace to English trade, but rather the reverse. With the growing demands of the world for iron and steel it is impossible for England to monopolize the trade. America and Germany must share in it. But I am convinced that if the same ability and energy is devoted to the iron and steel trades in this country as in America and Germany, we have the material resources to enable us to fully hold our own.

These are the words of a man who

has had much experience on both sides of the Atlantic, and is fully conversant with the commercial as well as the technical conditions of the trade, and they harmonize to some extent with the views which Mr. E. Phillips has expressed in the June number of the Engineering Magazine. In an earlier article he reviewed the utilization of ingenuity and mechanical skill, of the physical advantages possessed by the United States in competition with the steel industry with Great Britain. Now he reviews the laws and customs existing in Great Britain which handicap the British manufacturer, and points to the means of relief in practice, but he suggests that the proverbial conservatism of Englishmen has had much to do with delay in their acceptance of new conditions and their adoption of new methods, and he expresses the hope that the necessities of competition will induce a more progressive policy, otherwise their former pre-eminence as iron and steel makers will very shortly come to an end. He says that the British manufacturers must find new capital to erect new works and to reconstruct old ones, in equipping, in furnaces of the latest type, in utilizing every electrical, hydraulic and labor-saving appliance. This, he contends, will mean fewer hands employed for an equal tonnage and a dispensing for a time with the employment of a considerable number of workmen. For the benefit of the latter he says:

Whether the men realize it or not, England is face to face with a commercial war of competition with American and Germany that will tax her best energies to retain at all even a goodly share of her previous markets for steel (as well as for all other manufactures), and the next decade will see a far greater retrogression and falling off of trade than in the last, unless every means that science and mechanical skill can devise be allowed to have a free scope, and the co-operation of all men be given, notwithstanding that the number employed may temporarily be fewer. It would be nothing less than commercial suicide and the practical application of what is done by other countries. The policy of the men and their unions in the past has been to resist the introduction of labor-saving machinery that would increase production at a lower cost. But experience in all such mechanical revolutions has been that whilst for the time being numbers of men may be displaced, in the long run more men have been employed than previously, for the simple reason that cheap production creates a greater demand for an increased quantity. The policy of the men and their unions has been to restrict production, to do less work, but to demand more pay and work fewer hours. The American policy is the opposite to this. The men work harder there than in England, work longer hours, and go in for the greatest output that their powerful machinery makes it possible to turn out. And in doing so they earn much higher wages than in England. And this policy on the part of the employer in equipping his mines, of the engineer in the design and introduction of machinery for rapid production and transportation, of the men in complete co-operation, combined with the highest technical and scientific knowledge, accounts for the advantages the United States possess for producing cheaply and underselling others who continue working on antiquated lines.

This opinion about the part to be played by English workmen in the so-

lution of the great problem recalls the fact that the shortsighted policy resulting in the great engineering strike in England a few years ago was but slightly in advance of the wonderful spurt given to American industry, and must reasonably be regarded as one of the great causes of that spurt. That ought to have taught the British as well as the workmen everywhere an important lesson, but the discussion on the other side indicates a state of anxiety as to the attitude to be taken by the workmen there, which ought to be considered sanely and seriously by their American brethren.

Protection in Reciprocity.

During a generation and more individuals and newspapers have vainly resisted a governmental policy that has placed the United States in the lead of industrial and commercial nations. Now these resisters are pointing with the pride of assumed vindication to the fact that at the annual meeting of the National Association of Manufacturers President Theodore C. Search reiterated his belief in the benefits of reciprocity in trade. They seem to regard an advocacy of reciprocity in 1901 as an endorsement of a free-trade policy in 1850, 1880 or 1890. If they had read Mr. Search's speech they would have discovered that neither consciously or unconsciously has he endorsed such a policy either for 1850, 1880, 1890, 1901 or 2000. On the contrary, he distinctly emphasized his faith in protection, not only by advocating an extension of that policy to American shipping, but also by recognizing the protective element in reciprocity, yielding "much that will be of value to others without causing loss or injury to our own interests," as he put it. On the subject of a subsidy for shipping he said:

As yet we cannot build ships as cheaply as abroad, nor when built at any cost can we operate them under the American flag as economically as those which fly the colors of other nations. What hope, then, have we for successful competition with foreign ships unless our government shall do for our merchant marine what it has done with such eminent success for our manufacturing industries—place our ships on a footing where they can meet foreign competition without disadvantage.

There is a strange inconsistency in the reluctance of our government to apply to its shipping the same policy of protection that has been extended unhesitatingly and with magnificent results to its productive industries. This discrepancy seems all the more strange in view of the fact that every other maritime nation recognizes the need and the merit of such a protective policy, even though disowning belief in the principles of protection in general.

The man who uttered those words may hardly be accused fairly of "coming around to free trade;" in fact, they made it hardly necessary for him to say:

Having crossed the seas with goods to sell, and having begun a business that has amazed foreign competitors, we are confronted with new conditions, and we find that the outer view of our economic policy differs somewhat from its appearance on this side. A century of history has demonstrated the

marvelous efficiency of the protective policy for the creation of a great and prosperous industrial nation. Other nations, profiting by our experience, adopt the same policy, and barriers rise to impede our commercial progress abroad.

What shall we do under these conditions to preserve our export trade and open the way for its further expansion? Shall we abandon our protective system and ask other nations to give us equally free admission to their markets? Not for a moment should we consider such a step. It would be neither safe, expedient nor practical in accomplishing the desired purpose. If Germany seeks industrial advancement through a protective policy, far be it from us to object to the fullest enjoyment by others of that which has given us so great prosperity. If Russia undertakes to plant factories throughout her vast domains, we should be the last to criticize her adoption of the methods that have proved so successful here.

Conditions which now confront us in our foreign trade present the opportunity and impose upon us the duty of readjusting our commercial relations with other countries upon such a basis as shall insure freer intercourse without any sacrifice of material interests by either party. To put it in a word, reciprocity is the one factor that is of the utmost value to us in the present stage of our export trade.

There is nothing here of academic theory. There is nothing but practical sense—the sense that does not balk at an obstacle, sitting down before it to wonder whether it would have been met if another road had been taken fifty years before, but which promptly removes the obstruction with a careful regard for future certainties, and continues on the successful way.

In their preening and plumings about a figment the critics of Mr. Search and of the potential influences which he so ably represents have made the opportunity for practical men to recall the fact that the men and the parties which have succeeded in this country, and which have contributed so mightily to the country's substantial growth, have not been those who have clung blindly to man-made political theories as something inspired, and, therefore, as something unchangeable, and paradoxically, suitable for every emergency, but those possessed with the ability to throw aside unessentials, to recognize changed conditions and to adapt themselves to them.

Mr. Search certainly, in recognizing conditions, has not advocated a free-trade policy, nor have his associates in the convention in adopting a resolution that "the tariff on goods of which the cost of production is higher in the United States than in foreign countries should be at least what is necessary to compensate domestic industry for the higher cost of production." They and their fellow-protectionists are practical men. It is not beyond the range of possibility that conditions may exist some time in the future demanding absolute free trade. Should such an occasion arise Mr. Search and men of his stamp may be depended upon to lead in its advocacy, not because of any theoretical belief in the system, but because they may see a practical necessity for it to subserve the best interests of their country, and because protection may have brought the country to the point where it no longer may be useful. Much of the success of American manufacturers has been due to their readiness to send to the scrap-heap a piece of machinery, no matter how valuable it may have been, which has ceased to do economic work. But it is hardly time for the protective-policy machine to go to the scrap-heap.

Cotton-Goods Exports.

United States Consul William T. Grinnell, writing from Manchester, England, reports that during the past

three years the exports of cotton goods to the Latin-American countries have amounted to 1,784,547,400 yards from the United Kingdom and 198,814,750 from the United States. This difference of exports against the United States of nearly 530,000,000 yards a year of low-priced cotton piece goods has stirred the consul to make an elaborate presentation bearing upon the quantities and values of exports of unbleached and bleached and dyed goods from the two countries, and to urge that properly-equipped experts should be sent without delay to the South American countries to procure samples and to make themselves acquainted with the details of packing, terms of credit, etc., in order to gain for the United States a better share of the trade. He insists that Americans must conform to the trade customs of the countries to the south of us. This is another warning suggestion which American cotton manufacturers cannot afford to disregard.

Chance and Texas Oil.

A Texas oil company, whose managers are known to be thoroughly honest, upright men, who would not intentionally deceive anyone, publishes an advertisement in which the following appears:

Our company cannot state definitely when we will begin to pay dividends. If our first oil well is what we hope and believe it will be, it will produce 50,000 barrels of oil a day, or 18,250,000 a year. If we can sell this oil at fifty cents a barrel, which is a very low price, this one well alone will earn in net profits for our stockholders over \$9,000,000 a year. Such an outlook dazes the human mind, but this picture of our prospects is not overdrawn.

That is a question that is on all lips, but it is not difficult to answer. The Beaumont oil is the greatest fuel oil that has ever been discovered. It is 50 per cent. illuminating oil, and when refined has no superior on earth as a lubricating oil. We live in a big world, and there is no doubt that the factories, railway companies, steamships and all other enterprises will soon be using this oil for fuel.

The vast fortune accumulated by John D. Rockefeller answers the question as to the profits in oil as an illuminant. We are not solicitous about the market. This is a question that will speedily take care of itself.

On its face this looks dishonest—certainly it is very misleading, and yet its officers, we are sure, did not so intend it. But it is the wildest and most visionary advertisement of an oil company which we have ever seen. Nobody knows how long these gushers will last as gushers, but every sane man knows that it is worse than folly to estimate such fabulous profits. If all the gushers continued for a year at their present capacity, it would be impossible within that period to establish a market for the oil at any price or to create the facilities for handling it. The Texas oil situation is one of the greatest propositions ever submitted to the business world, but necessarily investments in oil stocks are speculative, and no one should invest who cannot afford to lose the money he puts in. Where there are chances for very large profits, there must be corresponding risks of loss. The oil business of Texas will doubtless create many fortunes, but no "gusher" will yield \$9,000,000 profits a year, and Mr. Rockefeller's fortune is hardly a fair or honest basis on which to calculate what Texas companies may do. Such misleading statements coming from men of honest intent are much worse than if from dishonest men, because they must inevitably react and do much harm to the authors, to the investors and to all legitimate business interests.

MISSISSIPPI: ITS MATERIAL DEVELOPMENT.

By Stuyvesant Fish, President of the Illinois Central Railroad.*

It is with sincere and great regret that I am forced to forego the honor of accepting your flattering invitation to address the University of Mississippi. Pray make my excuses, and accept this letter as being all that, in view of other engagements which keep me here, I can do at this time for "The Development of the Material Resources of Mississippi."

You will, perhaps, pardon some prefatory words of personal explanation touching my relations to the university over which you preside and the State by which it was endowed.

The first Mississippians whom I ever met were members of the university, and also members of a college fraternity which still flourishes in your midst. They had come to New York, shortly after the close of the civil war, to make the acquaintance of and to show their brotherly love toward us of the North while yet the losses and sorrows of war were fresh in all our minds, and bore with such peculiar severity upon them and their families in the South. I was but a boy, just out of school, and yet this first offer to "clasp hands across the bloody chasm" has not been and cannot by me be forgotten.

The published letters of Justice Lamar show that long before he, in 1874, made the speedy restoration of order at the South possible, through his magnanimous and eloquent eulogy on Senator Sumner, he had thought out and written out the peace-begetting plea with which he closed that memorable address: "My countrymen, know one another, and you will love one another." Is it not fair to assume that his teachings in the university, as professor of ethics and metaphysics, must have had somewhat to do with your undergraduates bringing to us in New York the divine message of healing so many years earlier?

Not only did the clergyman who had married my father and mother—the gifted, eloquent and charming Dr. Francis L. Hawks—become one of the board of trustees, named in the act of 1844, to incorporate the university, but my whole course at Columbia College was passed under the presidency of one of your predecessors, as chancellor; I refer, of course, to the late Dr. F. A. P. Barnard, of honored memory.

My first visit to the State was in the autumn of 1877, in connection with the organization of the Chicago, St. Louis & New Orleans Railroad Co. This gave me the privilege of making the acquaintance of Judge R. A. Hill, who then presided over the federal court, and was for so many years chairman of the board of trustees of the university.

It has since been my good fortune to know many of the alumni, among whom may be counted so large a number of those who have represented, and now represent, the State in Congress, and are, or have been, administering justice on the bench and practicing at the bar.

I also am, and have been for many years, a freeholder, a taxpayer, and, in a sense, a farmer in Mississippi, and, having devoted nearly a quarter of a century of hard work to the material development of the State, I may claim to speak thereon from experience, if not with authority.

If all that I have to say shall not, in every particular, coincide with your views and those of other citizens of the State, let us hope that this will be set

*From a letter to Chancellor R. B. Fulton of the University of Mississippi.

down to an honest difference of opinion on the part of one who is a well-wisher and a coworker.

The resources of Mississippi are essentially agricultural. Alone of all the Southern States, it lacks mineral resources. For, after all, Florida and South Carolina export phosphate rock, Louisiana furnishes both salt and sulphur, and Texas has of late begun to produce petroleum.

To contrast Mississippi with the equally agricultural Northern State of Iowa is natural, and may prove instructive.

Mississippi was admitted into the Union in 1817 as the twentieth State, and Iowa in 1846 as the twenty-ninth.

The next census, that of 1850, showed that Mississippi had more than three times the population of Iowa (606,526 against 192,214).

Although Iowa has long been more populous than Mississippi, the census of 1900 shows that in density of population there is no very great difference, Iowa having 40.2 and Mississippi 33.5 inhabitants to the square mile.

But on looking further we find that Iowa contains one city of over 60,000 inhabitants, three of from 30,000 to 40,000, four of from 20,000 to 30,000, and one of from 15,000 to 20,000. Those nine cities have in the aggregate a population of 282,355. In them dwell more than one-eighth of all the people of that State.

In Mississippi, on the contrary, there is not a single city of 15,000.

Furthermore, the eighty-eight villages, towns and cities in Iowa having a population of over 2000 contain 612,203 persons, while the thirty similar municipalities in Mississippi contain only 138,086. That is to say, the urban population of Iowa is more than fourfold that of Mississippi.

Without claiming any special virtue for an urban population, it must be admitted that in the mere matter of wealth urban communities excel the rural.

On the other hand, during the decade from 1890 to 1900 the total population of Mississippi increased in a greater ratio (20.3 per cent.) than did that of Iowa (16.7), or, for that matter, than did that of any one of twenty States, including Tennessee, Kentucky, Arkansas, Missouri, Indiana, Michigan, Ohio, Pennsylvania, Nebraska and Kansas.

Like Iowa, Mississippi is without any great commercial markets or manufacturing and distributing centers within her borders.

The marked difference noted above must be traceable to the character of the people, the way in which these States were settled and the habits thereby engendered. The development of the Northern and of the Southern States has proceeded on radically different lines. From the beginning all works of public utility were in the North created through joint action, and very generally by means of joint stock companies. From the earliest days the little saw-mill or grist mill, the small manufacturing plant, the turnpike road and the toll-bridge were at the North built and operated, if not by corporations, at least by joint effort. In the South, on the contrary, each plantation was a thing by itself, with its own store, its own mill, its own roads and bridges. To be entirely candid, it seems to me the North has prospered through combination and unity of effort, while the South has lagged behind by reason of isolation and the absence of a community

of interest. That this should have been the case so long as slavery endured was a necessity; that it continues to this day is a misfortune which we, as educated men, should set ourselves to correct.

Another marked characteristic of the State lies in the vast preponderance of the native-born population. The census of 1890 showed only 7952 foreign-born residents in Mississippi, as against 14,264 in Arkansas, 14,777 in Alabama, 20,029 in Tennessee and 49,747 in Louisiana.

From the beginning the State was blessed with a sea-coast, affording natural harbors available for small craft, as well as with a vast system of navigable rivers, which not only gave access to her whole western border, but also extended far into the interior in many directions. No State, certainly none west of the Alleghany mountains, earlier appreciated the value of railroads and its need of them. More than one railroad was in operation in Mississippi before a mile of track had been laid in Indiana, Kentucky, Tennessee or any of the States lying west thereof.

In spite of all its traditions in favor of State's rights and the strict interpretation of the Constitution, Mississippi, so far as I have been able to discover, was the first to pass an act "to extend and incorporate" a railroad company of another State within its own borders. Mississippi did this in its very first charter, which was granted before the Chickasaw Indians had ceded their lands in the northern part of the State, including that on which the university stands. On December 20, 1831, the first native-born governor of Mississippi, Gerard C. Brandon, approved the "Act to extend and incorporate the West Feliciana Railroad Co. of the State of Louisiana within the State of Mississippi." This gave the assent of the State to all and each of the provisions contained in the Louisiana act incorporating the West Feliciana Railroad Co., adopted, ratified and enacted it into a law of Mississippi, and provided that said act should thereafter be in full force and effect, as well within as without the State, "as an act incorporating a company for the purpose of erecting a railroad from the town of St. Francisville, in the State of Louisiana, to the town of Woodville, in the county of Wilkinson."

The West Feliciana was the first railroad authorized by the State of Mississippi, and, if I mistake not, the first interstate railroad ever chartered or built. It was conceived and carried to a successful establishment by Mr. Edward McGee, one of the original settlers of the State, who had gone thither during the territorial government, and whose descendants are still living in and about Woodville. It is today operated as a part of the Yazoo & Mississippi Valley Railroad.

The granting to corporations of other States the right to extend their railroads into and through its borders, and of allowing them to exercise in the State charter powers similar to those granted by such other States, has throughout been the settled policy of Mississippi.

The adoption of this or some like policy equally characterized by broadminded statesmanship was a necessity arising from the physical fact that it is at New Orleans, in Louisiana, at Memphis, in Tennessee, and at Mobile, in Alabama, that the cotton and the lumber grown in Mississippi must find markets, and that it is chiefly through those cities in other States that the people of Mississippi must draw their supplies.

In this way the New Orleans, Jackson & Great Northern Railroad, which had been begun under a charter granted by the State of Louisiana, was continued

from the boundary of that State to and beyond Canton, with authority from the State of Mississippi to proceed north-eastwardly through Aberdeen to the Alabama line in the direction of Nashville, Tenn. The like thing has been done in several instances since the civil war, and was done in the case of the railroad formerly known as the Georgia Pacific, which is now operated by the Southern Railway Co., and extends clear across the State in an east and west direction from the Alabama line near Columbus to the Mississippi river at Greenville.

It is doubtful if any State in the Union has granted more or more liberal charters to railways than has Mississippi. Through the kindness of a friend who has examined the session laws for me, I am able to say that:

From 1831 to 1840 Mississippi chartered at least twenty-three railroad companies.

From 1841 to 1850 Mississippi chartered at least seventeen railroad companies.

From 1851 to 1860 Mississippi chartered at least thirty railroad companies.

During the throes of civil strife it incorporated one in 1863, and in the ten years from 1861 to 1870 fifteen railroad companies.

From 1871 to 1880 Mississippi chartered at least forty-nine railroad companies.

From 1881 to 1890 Mississippi chartered at least sixty-nine railroad companies.

Here we have the granting of 203 separate charters, and my friend tells me this does not by any means represent the total.

The liberal policy of the State resulted in there being in operation therein in 1890 some 862 miles of railway. With insignificant exceptions, these formed parts of interstate railroads leading to New Orleans, Memphis or Mobile. In respect to the number of miles of railroad in operation, Mississippi then ranked thirteenth among the States of the Union. The civil war and subsequent misrule necessarily had a repressive effect, and in 1880 we find only 1127 miles of railroad in operation.

Under the leadership of such jurists and statesmen as Judge Wiley P. Harris, Col. L. Q. C. Lamar, Gen. E. C. Walthall, Gov. John M. Stone, Gov. Robert Lowry, each of whom I am proud to have known, with others well known to you, the strong and wise men of your State had in 1876 restored order, re-established civil government and a respect for vested rights. They, and men like them, were at the head of affairs in 1882. At the biennial legislative session held in that year sixteen railroad charters were granted, and in 1884 twenty-two. Many, if not all, of them contained very liberal provisions as to the fixing of rates, and most of them in effect granted exemptions from taxation for various but limited terms of years. Those wise, public-spirited men realized, as never before or since, that capital, which Mississippi lacked and lacks today, is by nature inert, and that those having the control or custody of it are to the last degree timid. They saw with unerring vision that in order to draw capital to Mississippi from the North and the East and from Europe it was not only necessary to give the usual assurances for the sanctity of vested interests, but also to do something more by way of inducement. It is not surprising to note that the liberal charters granted in 1882 and 1884 resulted in there being within the State in 1890 more than double the mileage which had been built in all the years preceding 1880, to wit, 2471 miles.

The people of Mississippi saw fit in 1890 to adopt a new constitution, and have since made laws thereunder with respect to railroad and other corporations which are, to put the case mildly, repellant to capital. As a consequence, we find that in 1899 (the last year for which the interstate commerce commission or the commission of the State of Mississippi have published figures) there were but 2788 miles of railroad. The State now ranks twenty-eighth in the mileage of railroads in operation, the increase during the last nine years, under the changed policy of the State, being 317 miles, or 12.83 per cent., as against 1343 miles, or 119.17 per cent., in the previous decade. Most of the mileage added since 1890, indeed, nearly all of it, is now operated by one or the other of the old companies.

The constitution of 1890 prohibited the granting of legislative charters to business corporations, and required them to be incorporated under general laws. The effect has been that since 1890 only eleven railroad companies have been so organized; eight of these seem to have done nothing, and the other three have built about twenty-five miles apiece.

If you will pardon a word of criticism from one who, despite his large and abiding interest in, is not a citizen of Mississippi, let me suggest that in the making of such laws before the State had obtained all the railroads and all the banks and all the factories which it needs, a costly error has been committed. That such institutions and corporations should be regulated by law goes without saying. The Northern and Western States have, however, been prudent enough to obtain their railways, their banks and their factories before legislating against them. They have not gone out of their way to make regulations which have repelled capital, and thereby prevented and delayed the material development of their own resources. To her great and lasting loss, Mississippi seems to have adopted all the restrictive legislation of the older States, which now have no special need to invite foreign capital by encouraging the development of corporate enterprises.

That the necessity of attracting foreign capital into the State is now appreciated by your public men is evident from the inaugural address delivered by the present governor, the Hon. A. H. Longino, on January 16, 1900, and from his many public utterances and writings.

From conversations and correspondence with the governor I am well convinced that he has determined to do all that lies in his power toward the material development of the State. His recent "Good-Roads Proclamation" is in point.

That the cost per ton to a railroad of carrying freight diminishes as the volume increases is axiomatic.

The staple crop of Mississippi is cotton, of which about 185 pounds of lint, and say twice as much more, 370 pounds, of seed, have in the United States been on the average produced in each of the last twenty years. This yields, all told, 555 pounds per acre.

The staple crop of Iowa and other Northern States is corn, of which about twenty-five bushels, weighing fifty-six pounds, or in all 1400 pounds per acre, are produced annually.

That is to say, the potential tonnage annually grown per acre in Mississippi is less than four-tenths of that grown per acre in Iowa.

Moreover, in 1890 the area of improved land in farms in Iowa was 25,428,809 acres, as against 6,849,390 acres in Mississippi.

These conditions greatly and permanently restrict the volume of the local business of your railroads, the receipts

from which form, as is well known, the life-blood of railroad revenues.

Traffic in Mississippi is further diminished by the absence of minerals of all kinds. Irrespective of coal hauled for the company's consumption, the Illinois Central Railroad last year carried as freight for others 5,593,676 tons of coal and coke. None of this was produced and but little of it was consumed in Mississippi. You will better appreciate the magnitude of our coal tonnage when I say that it weighed greatly more than twice as much as did the entire cotton crop of the United States, which amounted to 9,439,559 bales, weighing 2,377,315 tons.

A knowledge of the radically different conditions surrounding railroad business in Mississippi and in the Northern States led us more than twenty years ago to promote the diversification of crops by inducing fruit culture, mixed farming and stock-raising. Attention was also given from the start to developing the lumber trade, thereby converting the forests, which had cumbered the ground from time immemorial, to man's use and profit.

Other railroads throughout the State have done and are doing the same thing.

The results are that wherever something besides cotton is raised, and particularly where standing timber is converted into lumber and other useful articles of woodenware, the towns and hamlets are thriving, roads and bridges are built and improved, and the people are prospering as never before.

Another thing which has within the past ten years happened to the inestimable and lasting good of the State is the breaking up of the old custom of planting cotton on credit; that is, of having the cotton factors of New Orleans, Memphis and Mobile "find" or finance for the farmers.

Figure it as you may, the charges made by these gentlemen—including commissions on buying mules, plows and supplies, on selling the crop, and the discounts deducted on notes given—amounted to well over 20 per cent. per annum on the money or the money value actually furnished by the factor to the farmer.

No Northern State has ever stood, or is productive enough to stand, such a charge throughout a series of years, and yet the South generally, and particularly Mississippi, after four years of war, followed by ten years of misrule, did, throughout a generation, under these circumstances, subsist and grow. This bears the strongest testimony possible to the fertility of the soil and the capacity of the people of Mississippi to work, endure and conquer.

The factors' credits began to be generally withdrawn after the panic of November, 1890, and today the farmers of Mississippi are very generally out of debt. Many parts of the State now enjoy the blessings of mixed farming and fruit culture, under which crops are marketed during the spring and summer months, thus furnishing the cash with which the cotton crop is now so largely grown.

The development of the material resources of Mississippi seems to me at least to have been retarded by the following causes:

First—Slavery. This created great family estates, constituting complete civil communities in themselves, and thereby making unnecessary, if not also impossible, that concert of effort which so largely, through joint stock companies and the aggregation of small individual contributions into vast corporate capital, long since furnished the North with its banks, factories, turnpikes, canals, railroads and other active agencies of commerce, and has kept them agrowing.

Second—The repudiation by Mississippi of its bonds in 1841, and again in 1852. Of this your own historians say:

"There can be no question that the repudiation of the Union Bank bonds, followed eleven years later by the formal repudiation of the Planters' Bank bonds by the votes of the people, has proved to have been a most expensive luxury to every citizen of Mississippi engaged in any kind of business."

"The repudiation of the bonds was an undeniable blunder, and a blunder, according to Talleyrand, 'is worse than a crime.'" (A History of Mississippi, Second Edition, Lowry & McCordle, pp. 292-293. See also p. 338.)

Third—The four years of civil strife.

Fourth—The ten following years of misrule.

Fifth—The general, almost universal practice among your best-born, best-educated and best-equipped young men of confining their efforts to the learned professions instead of qualifying themselves for and embarking in commercial, manufacturing and other distinctively productive pursuits.

Sixth—The extent to which these highly-gifted and educated young men have settled in the great cities of the North and the West, and there made fortunes and reputations which now tie them to their adopted homes and cut them off from that of their birth.

Seventh—The restrictive policy embodied in your constitution of 1890 and in the laws since passed in respect to corporations.

Eighth—The absolute control of all civil offices and all political power by one party ever since the enfranchisement of the State from the blighting effects of "carpet-bag rule" in 1876.

Touching this last, you know I am neither a politician nor a partisan, and yet I can't help saying that while such domination by the democratic party was a necessity, that necessity ceased with the disfranchisement of the more grossly ignorant elements of the population. Nor can I help thinking that there are today in Mississippi and throughout the South thousands of intelligent, honorable and active men who would, on strictly national issues, gladly support the republican party (under which, after all, the nation has prospered and is prospering) if only they could retain full liberty to control their own local affairs and their State policies, as to them may seem best, without dictation from Washington or elsewhere. For this things are ripe both at the North and at the South. As I write the two senators from South Carolina have tendered their resignations in order to join issue on what is substantially the question here stated.

No State in the Union is more favored than Mississippi in the fertility of its soil, in the value of its standing timber, or, above all, in the quality of its men, their almost absolutely pure American blood and their descent from those who went to make up the best of it. What, then, is lacking to the material development of the State?

If it had been given me to say a few words of suggestion to the young men whom you are about to graduate and send on their journey through life, I would have cast them about as follows:

Alike for the sake of the good name of the State, and from motives of enlightened self-interest, see to it that the stigma of repudiation be removed by making with the creditors of the State such honorable settlement as they may be willing to freely accept. (While on this point it is due to myself to say that I do not own, nor do I know anyone who does own, a single bond of

the State of Mississippi, excepting only the trustees of the Peabody educational fund. Moreover, the Illinois Central Railroad Co. and the Yazoo & Mississippi Valley Railroad Co. are, and have been for many years, probably ever since they began operating railroads in the State, the largest payers of taxes in Mississippi. It will, therefore, be on their shoulders that the heaviest part of the burden which I now invite will fall.)

I would say: Look forward, and not backward. Be mindful of your own future and that of your children, for both of which you are responsible. Let the dead past bury its dead. As Col. Henry Watterson said some two or three years ago, "It is high time that the South stopped feeding on cobwebs."

Instead of further overstocking the learned professions, turn your well-trained minds to the development of the vast latent resources of your own favored land. Bring to bear upon commercial, manufacturing and what are now called business pursuits the wealth of inherited and acquired intellectual capacity with which it has pleased God to endow you. Be mindful that to you much has been given, and that of you much will be required. Do not wrap your talent in a napkin and bury it in the ground of sloth and idle contentment.

I would say with Horace Greeley: "Young man, go West," but I would not add, as he did, "and grow up with the country." No, I would rather add: Find out what of good there is in the West, which has within a generation made a desert blossom as the rose. Solve that riddle, bring the secret back to the far more favored land in which you had the fortune to be born, and apply it with energy and perseverance, and doubt not as to the outcome, alike for yourself and for the State.

And finally, I would say: Combine your capital (which may not be in money, but consist of far more potent and valuable things, such as education, character, capacity, perseverance and honesty of purpose), with the capital of others, and, for their sake and yours and the good of the State, make common cause for mutual profit. "In union there is strength," or, as the French better express it, "Union makes strength."

My dear Mr. Chancellor, in closing let me crave your indulgence for the many imperfections of this letter, which has of necessity been written in the midst of frequent interruptions. If it contains a thought or a suggestion of value to the State or its university, I shall be more than repaid.

Want Cost of Refinery.

New Orleans, La., May 28.

Editor *Manufacturers' Record*:

I beg to ask you to furnish me with the following information as promptly as possible:

1. What will be the approximate cost of a complete plant for the refining of petroleum into illuminating oil and the by-products, exclusive, of course, of the cost of the ground and of the buildings themselves (capacity of 500 barrels a day)?

2. The approximate cost of the buildings?

3. The total number of acres of ground required for all purposes?

4. The names of some of the manufacturers who make a business of equipping such oil refineries? A. LICHTENTAG.

1118 Robin street.

The sales of the Joplin (Mo.) district during the week ended June 8 were 10,990,140 pounds of zinc ore and 1,264,700 pounds of lead ore, valued in all at \$164,289.

THE USES OF WEALTH.

Criticism of Carnegie and Rockefeller Met by Abram S. Hewitt.

Referring to recent criticisms of the methods of disposing their wealth by millionaires of the country, "Holland" writes from New York to the Philadelphia Press as follows:

"By reason of the coincidence of the commencement exercises of several institutions occurring yesterday, there appear today opinions expressed by men of ability as to the influence upon their generation and the future of Andrew Carnegie, John D. Rockefeller, Pierpont Morgan and several other men of wealth, who have been also distinguished for philanthropy. These opinions differ radically, although it may be that this difference is occasioned by the various points of view. For instance, the president of Bowdoin College is reported as having severely condemned Mr. Rockefeller for imposing certain conditions when making his gifts to various colleges or universities. President Hyde looks upon these conditions as tending to vitiate much of the good influence that might otherwise have been secured through Mr. Rockefeller's lavish benefactions to colleges and universities.

"Then again, President Gilman, about to be the ex-president of Johns Hopkins University, is quoted as having, with the eloquence and earnestness which distinguish him, attacked Mr. Carnegie's distributions of money for the endowment of public libraries. President Gilman looks upon the great increase in reading, due largely to the ease with which books are procured, as unquestionably leading to superficial thinking, as fraught with danger, especially to the people of a democratic republic like ours. Therefore, the inference from President Gilman's quoted remarks is that Mr. Carnegie might have done better with his money than to make possible or even inevitable a vast range of reading by the American people, entailing loose or flippant thought.

"On the other hand, Abram S. Hewitt stood before as great an audience as ever gathered in the historic hall of Cooper Union and extolled the philanthropies of Andrew Carnegie and John D. Rockefeller. Here, at least, what Mr. Hewitt says upon any subject carries more weight and is longer remembered than the comments of any other citizen of New York. He has such a marvelous capacity for lucid expression. He thinks so accurately and often so profoundly and has lived long enough for the present generation to congratulate him upon the fulfillment of predictions that he made years ago, at a time when they were regarded as mere dreams, and, moreover, has such brilliant capacity of formulating his thought in an attractive way, although utterly without flippancy or vulgar sensationalism, that it is safe to say the greater part of this community reads from beginning to end the printed reports of Mr. Hewitt's addresses and then thinks about them. It is doubtful if that can be said of any other citizen of New York, excepting Mr. Choate, and he is read more for his wit and humor than for his thought.

"The intellectual vigor of Mr. Hewitt, who is not in good physical health, and soon, if he lives, will celebrate his eightieth birthday, is one of the astonishing characteristics of a career that has been crowned with brilliant successes both in political and in business activities, and in the highest sphere of pure economic thought. Mr. Hewitt commends the career of Andrew Carnegie first in concentrating all his efforts for more than forty years in the accumulation of wealth, and,

having gained that ambition, in now devoting himself to the wise expenditure for the benefit of the world of his possessions. Mr. Hewitt, who has been intimately associated with Mr. Carnegie in philanthropic works, for both of them are trustees of Cooper Union, until recently New York's greatest industrial and educational philanthropy, speaks from his personal knowledge when he says that Mr. Carnegie is giving like energy and wisdom and ability to the disposition of his fortune for the good of the communities that distinguished him in the accumulation of that fortune. Mr. Hewitt let out one secret that he had hitherto confided only to his most intimate friends. He said that two years ago Mr. Carnegie was willing to dispose of his interest in the Carnegie corporation for an even \$100,000,000. The plans fell through, and Mr. Carnegie was the gainer of \$200,000,000 thereby, since he did receive last winter in the neighborhood of \$300,000,000.

"Mr. Hewitt also commends the very methods characteristic of Mr. Rockefeller's philanthropies which Presidents Hyde and Gilman are quoted as having condemned yesterday, and he spoke with especial emphasis upon the protracted investigation and deep thought which Mr. Rockefeller gave to the proposition that he found and endow an institute of medical research. It was an investigation, Mr. Hewitt says, as careful as any Mr. Rockefeller ever gave to the business plans which brought to him his great wealth; that is to say, it was as thorough in detail and as exhaustive as his consideration of industrial propositions.

"The other day, when it was announced that Mr. Rockefeller had endowed and would continue to endow an institution for medical research whose purposes are to discover the means of preventing disease rather than of curing it, Mr. Hewitt spoke of this endowment as in some respects the most important made within the recollection of the present generation.

"Whether Mr. Hewitt's views will be accepted generally as more accurate than those expressed by Presidents Hyde and Gilman will depend upon the point of view of those whose judgment as to these opinions is asked. The college presidents are of academic experience chiefly, although President Gilman would have made conspicuous success had he taken up business rather than the vocation of a teacher. Mr. Hewitt is both an academic student and a master of pure philosophy in its application to economic subjects, but he is also a very successful man of practical affairs. It is a rare combination even in this day when so many men of intellectual power that almost touches genius are to be discovered all about us. But in addition to these qualifications, Mr. Hewitt possesses the gift of literary expression, which, had he cultivated literature as a vocation, would in all probability have placed him in the front rank of American writers of his kind. Therefore, men of affairs and probably some of the student's closet and library will be likely to accept Mr. Hewitt's view, whereas the opinions of Presidents Hyde and Gilman will in all probability be echoed from many of our colleges."

Col. C. S. Riche of the United States engineers and his corps of assistants have completed plans showing in detail the work to be done in connection with the project for a waterway from Houston to the Galveston jetties. The length of this is fifty-eight and three-quarters miles, and it is proposed to give it a depth of twenty-five feet and a width of not less than 100 feet.

THE INDUSTRIAL OUTLOOK.

Mr. B. F. Jones Describes the Increase in Productive Power.

Fifty-four years' connection with iron manufacture in the United States has given B. F. Jones, until last year the active head of Jones & Laughlins, Ltd., of Pittsburgh, probably a wider experience than that of any member of the trade. The vicissitudes of iron manufacture in his business career have been many. A broad-minded man of affairs, he has been active in politics, and has borne a leading part in the work of the American Iron and Steel Association in furtherance of a governmental policy that would lead to the largest and speediest development of iron and steel manufacture in the United States. Though Mr. Jones has retired from the presidency of his company, his son, B. F. Jones, Jr., succeeding him on the reorganization of the company last year, he is still a member of the advisory board, and takes the liveliest interest in the various movements of the past year that have made sure the position of Jones & Laughlins, Ltd., as the leading steel manufacturer apart from the Steel Corporation. Speaking in an informal way to a representative of The Iron Trade Review in the past week, Mr. Jones expressed himself very hopefully concerning the industrial outlook in this country. Coming from one of Mr. Jones' large experiences, we are sure his comments, though given in casual conversation, will be interesting to our readers, and we have obtained his permission to reproduce in part what he said:

"I am optimistic in my views of the future of the iron trade, because I find so many indications of a wonderful advance in the life of the people. The developments of the past few years have been marvelous. The world movements are so rapid that one can scarcely keep track of them. Our close contact with nations that we have long regarded as so remote that they would always be inaccessible is a thing of the greatest significance in its relation to our industrial progress in the years just ahead. It is only a few years ago—I was in Paris at the time—that Europe was welcoming back Stanley from 'darkest Africa.' Not so long ago, when a party of young Harvard College graduates went out on a hunting and exploring expedition to Africa, we looked upon them as upon those we would never see again. It seemed that they were giving up their lives in venturing into such a remote and savage country. But today there is nothing in a trip to Africa to excite the slightest comment. Representatives of American manufacturers are going and coming all the time, and we are regularly doing business with Africa. And there's China that only a few years ago, with its 400,000,000 people, was an unknown land. And so with Japan and the Philippines and Hawaii, with all of which our trade relations are to be closer and closer.

"But to me the most impressive factor in our modern life, and one that is very important in our material development, is that the individual man counts for so much more than he used to. The vast increase of our population is not so much of a wonder as the way in which the power of every unit of our population has been multiplied. The relation of this fact to iron consumption has been so well established that iron by common consent has become a sort of barometer of civilization and progress. While we have reached a per capita consumption of 400 pounds of pig-iron in the United States, China's rate probably wouldn't reach four pounds, with all her millions.

"As a familiar illustration of the way

in which our industrial power has been multiplied, I recall that in the early days of my connection with iron manufacture in the forties, it took three men to handle a 150-pound bloom in our forge. Now a single man—and he may wear kid gloves if he choose—has only to pull a lever and a 50-ton mass of molten metal is lifted and carried wherever he wants it. And the mechanism of trade has increased in the same way. Our banking and currency and credit systems are inconceivably beyond those of the early days. I can sit in this office and transact in a day as much business in volume as all Pittsburgh did in a day when I was a young man.

"The increase in individual producing and consuming capacity is due to a variety of causes which represent the increasing complexity of life in this country. A very important factor in it all has been the perfecting of the means of transportation. We must not forget that the railroads have made a large contribution to the present conditions. For example, it costs no more to send a barrel of flour from St. Paul to Liverpool today than it once cost to send it from Washington county, Pennsylvania, to Pittsburgh.

"The general diffusion of intelligence today is a striking feature in our industrial development. The average degree of skill in the labor of today is much above the level of the last generation. Never before have wage-earners been readers as they are today. I cannot but contrast the intelligent faces of the men in our works today with the inert countenances of so large a proportion of the workers of the earlier years. The workmen of today are reading and thinking."

Asked to speak concerning the future of industry in the United States, particularly of the iron industry, Mr. Jones said:

"I look toward the future with great hopes. It is the habit of older men to dwell on the past, but I find pleasure in contemplating the greater future of the iron trade. Great as our progress has been, we are to make new records in the years before us. I do not look with alarm, as some people do, upon the formation of trusts. Self-interest will dictate a policy of conservatism. They must not put prices up, for that will inevitably cut off consumption. They should guarantee a steadiness in prices which will give the iron trade a more even pace and save it from the very wide fluctuations that have marked it for many years."

"What as to the future of our export trade in steel?"

"While just now there is quietness in the export trade, it will continue to be an important factor, as it had begun to be. The question of transportation is an important one in this connection. I believe in the ship subsidy as a means of rapidly building up our own ocean-carrying trade. I look at it just in the light in which I view protection. It brings results speedily that otherwise, if attained at all, would only come after long time. Protection has built up our population, so that today we have 76,000,000 of people, whereas without it we should probably have had by this time 15,000,000, 18,000,000 or 20,000,000. We want to develop an ocean-carrying industry rapidly, so as to hold and increase our foreign trade in iron and steel."

"What of the course of the iron market in the immediate future?"

"The indications for this year are excellent. The mills are full of business. Crop reports are favorable. Prices are not high, and prospects are good for continued large consumption."

"Does it seem likely that the new capacity for iron and steel production now being built and the further extensions for which plans have been made will soon

bring us to the point of overproduction?"

"I think not. It will be a year before any considerable addition will be made to our output from new works now building or planned, and the natural growth of our needs, I believe, will take care of the capacity now being provided."—Iron Trade Review.

COAL OUTPUT IN 1900.

The Great Record Made by the United States.

Practically complete returns to Edward W. Parker, statistician of the United States Geological Survey, show the total output of coal in 1900 to have been 267,540,000 short tons, an increase over the preceding year of 13,800,000 tons, or a little over 5 per cent. The value of this enormous product was \$297,920,000, an increase over 1899 of \$41,845,000, or about 16 per cent. There were only three States whose coal product in 1900 was less than that of 1899. These were Maryland, Oregon and Idaho. The largest increase in tonnage was made in West Virginia, that State exceeding a total of 20,000,000 tons for the first time. The next largest gain was in Ohio, where 2,605,138 short tons were added to the product of the previous year. The net gain in Pennsylvania amounted to 2,150,000 short tons. Alabama is credited with a gain of 800,000 tons, or about 11 per cent.

Prior to 1899 Great Britain was the leading coal-producing country of the world, but in that year the United States took first place. The production of Great Britain in 1900 amounted to 225,170,163 long tons, or 252,190,573 short tons, compared with which the United States has a lead of 15,300,000 short tons, or just double that of the preceding year.

The following table shows the production of coal in the United States in 1900 by States, with increase and decrease as compared with the output in 1899:

State.	Short tons.	Increase.
Alabama.....	8,393,385	799,969
Arkansas.....	1,441,345	597,791
California.....	171,708	10,736
Colorado.....	5,232,843	456,619
Georgia and N. Car.	333,291	73,284
Idaho.....	25,153,929	714,910
Illinois.....	6,449,645	443,122
Indiana.....	1,916,572	381,145
Indian Territory....	5,237,634	60,155
Iowa.....	4,453,107	600,840
Kansas.....	5,181,917	574,662
Kentucky.....	4,024,688	*782,708
Maryland.....	849,455	224,747
Michigan.....	3,269,491	243,677
Missouri.....	1,661,775	165,324
Montana.....	1,299,099	248,385
New Mexico.....	129,883	31,074
North Dakota.....	19,105,408	2,605,138
Ohio.....	58,894	*28,024
Oregon.....	57,107,660	*3,310,345
Pennsylvania.....	79,616,346	5,466,171
Tennessee.....	3,731,617	400,958
Texas.....	968,373	84,541
Utah.....	1,146,277	360,228
Virginia.....	2,137,097	31,216
Washington.....	2,474,063	444,212
West Virginia.....	21,880,430	2,727,435
Wyoming.....	4,014,692	177,210
Total.....	267,542,444	†13,802,462

*Decrease. †Net Increase.

BORING AT BEAUMONT.

The Search for Oil in New Spots Still Continues.

[Special Cor. Manufacturers' Record.]

Beaumont, Texas, June 8.

Boring operations are being concentrated on Spindle Top Hill. The tendency is growing every day to bore for oil where it is felt that success will be a certainty. The Swayne syndicate, which was reported in last week's letter to have sold several small lots to various oil companies, provided the means for this concentrated effort by making the sales mentioned, thus enabling many of the oil companies to get one well in the charmed circle. So certain is everyone that every well will come in a gusher that is being bored on the favorite area that Messrs. D. R. Beatty and Foster Rose

sold a small piece of land to a syndicate of New York and Texas capitalists with a guarantee that a well will be found on the land. This is probably the only deal of the kind ever made, certainly in this field. Necessarily, where many of the oil companies only bought a quarter of an acre of ground, the derricks erected thereon are very close together. In one or two instances the legs of the derrick rest on the ground within the base of its neighbor. No new wells have come in during the week. The Texas & New Orleans Oil Co., owner of the famous "Kelly" dry hole, has about concluded to sink a deeper well on its property. It is proposed to put this new well down some thousand feet nearer the field than the Kelly well, and to go as deep as 3000 feet if necessary. This is not fully determined, but will very probably be done. The various oil exchanges in the city have consolidated their interests. The report sent last week with reference to the Texas-Western well was premature. The assertions made were not justified by subsequent developments.

The International Creosote & Construction Co. is conducting some interesting experiments with the Beaumont oil looking to its use in a new direction. It is treating 10,000 railroad pine cross-ties with the oil for the Gulf, Colorado & Santa Fe Railway Co., with a view to seeing whether or not it is suitable for preserving the wood, the same as with other oil processes. Should this be successful, it will open the way for the consumption of large quantities of the oil, and will also tend in a measure to relieve the strain now felt by railroad companies in procuring ties.

OIL NOTES.

Facts About Petroleum and Its Uses.

In an interview in the New Orleans Picayune Mr. J. C. McDowell, general manager of the J. M. Guffey Petroleum Co., said that a necessary part of the company's undertaking would be the erection of a refinery. He said that the great problem to be dealt with first was that of storage and shipping facilities.

A dispatch from Buffalo states that during May forty-five wells, with a total new production of 312 barrels a day, were finished in the Allegheny field, and that thirty-three wells are now being drilled. Five wells that were drilled eight miles north of Bolivar started at seventy barrels, and have settled to eighteen.

In an exhibit prepared for the rivers and harbors committee of Congress by the authorities of Houston, Texas, a statement is made that the position of Houston, between the Corsicana and Beaumont oil districts, is enabling a number of leading industries of the city to substitute oil for coal and wood fuel with a great saving of cost.

The monthly review of the internal commerce of the United States undertaken by the Treasury Bureau of Statistics in its monthly publication, the Summary of Commerce and Finance, summarizes in its opening pages the principal feature of the internal commerce of the country during the first quarter of the current year. Referring to this a dispatch to the New York Commercial from Washington says: "One of the immediate effects of the opening of the new source of fuel supply in Texas is to place all industrial establishments in that section depending upon steam power upon a more favorable economic basis. The producers of fuel oil are well aware of this opportunity to substitute, and are

making provisions to distribute fuel oil at all railroad points and points accessible to navigation. If the use of fuel oil becomes extensive enough it may materially reduce the price of coal at the lower Mississippi centers."

In the Birmingham District.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., June 11.

The iron market has been and is in an unsatisfactory condition. The past week was dead dull. No one had anything else to say of it. While but little new business is being registered, shipments on account of old business continue free, and purchasers of deferred deliveries are yet requesting anticipation of delivery. In some cases they assert that unless they can obtain this, they must shut down for want of stock. There are others, too, in sections where the strikes exist, who are clamoring for delay in delivery. So there is a good deal of accommodation being extended by the furnaces. One cause of the light trade is the unsettled condition of labor and the uncertain action of various labor associations on July 1. With that settled we would have a good trade. The various pipe companies have large requirements to fill in the near future, while other interests will, "as soon as the clouds roll by," be actively in the market for iron.

Quotations are difficult to give correctly. No. 2 foundry is quoted from \$11.25 down to \$10.75. While your correspondent knows that sales were made at \$10.50, there is no one who will quote it at that price. It is only fair to say every buyer can't obtain those figures.

In steel there is no cessation of demand, and prices are reported as satisfactory. So many reports concerning the steel mill have been in circulation that it has been officially announced that the company does not at present contemplate any enlargement. Immediate attention is being given to the improvement of mixing methods, and old machinery will be replaced by the most modern appliances and the output materially increased at a nominal cost. One manager will control this department and be entirely under company supervision.

A company is in process of formation to establish a hoop mill. The rolling mill at Helena, south of this city, situated on the Louisville & Nashville Railroad, which has been dead so long, has been purchased. An important feature of its work will be the manufacture of cotton ties. The company will be well financed and under good management.

The Pittsburg parties who lately bought important coal properties in Walker county have taken out articles of incorporation under the title of the Corona Coal & Coke Co., and will materially increase the output of their mines. They are capitalized at \$1,200,000. J. M. K.

The Pig-Iron Market.

Matthew Addy & Co. of Cincinnati report for the week as follows: "Thus far June has been all of a piece. Of course, business has not been by any means dead, for there has been a very steady buying of small lots for practically quick shipment. One or two fairly decent transactions in malleable and Bessemer iron have been made, but, compared with the activity earlier in the year, the month has been dull and the machinists' strike has greatly complicated the situation. At the present time this strike throughout all this district is seriously affecting the general foundries. In some instances they are shut down; in most instances they are running simply part time. Under these circumstances foundrymen, of course, are not interested in pig-iron.

In the last day or two there have been several large inquiries for gray forge. The mills have been very busy, and their demands for faster shipments on old contracts have been hard to handle satisfactorily. There are no surplus stocks of pig-iron in consumers' yards anywhere. As far as we can make out, there is absolutely no reserve stock on hand. This is a fact that has a very important bearing on the situation, for it means that when the strike is over and work is generally resumed pig-iron shipments will have to be materially increased immediately."

Progress at Elkins.

[Special Cor. Manufacturers' Record.]
Elkins, W. Va., June 11.

The city of Elkins, as its new liberal charter terms it, is just now entering upon the climax of eleven years of continuously prosperous growth. One of the causes of its activity is the nearness to completion of the Coal & Iron Railway, which has been under construction for sixteen months, and which, opening up many hundred thousand acres of virgin timber and other valuable products, will connect with the Greenbrier branch of the Chesapeake & Ohio Railroad. The grading is nearing completion, and as the girders are now being placed for the bridge across the river here, tracklaying will soon begin. Building operations in the town were never so active, and most of the buildings being erected are of the most substantial character, largely of brick and stone. The Trust Company of West Virginia, just organized and ready for business, of which former Senator Henry G. Davis is the president and controlling spirit, is erecting a modern banking building, all of stone and steel, with the latest improvements in safety vaults. So active are building operations that there is strong demand for more building contractors for stone, brick and frame work.

With railroads radiating in four directions from Elkins through regions of the greatest activity in mining and lumber industries, the advantages of the town as a distributing point are becoming apparent, and wholesale merchandising is becoming a feature. A wholesale grocery has been in successful operation for a year, and the contract for the building of a wholesale notion house has been let. Other wholesale dealers are looking for locations.

Elkins offers a most favorable opportunity for manufacturing industries dependent upon timber of any kind grown in this State, upon cheap fuel and upon either Eastern or Western markets, reached by ample railroad facilities. Furniture manufacturers, tanners, extract makers will be repaid by a careful examination of the resources of this territory.

Real estate has been very active, mostly for building purposes, and the demand for lots continues. Owing to the high and healthful location of the town, its churches and good schools, many live here who are engaged in business at other points.

Messrs. Livingstone & Robb are about ready to let contract for a three-story store and office building. Messrs. Kendall & Von Allman are getting estimates upon a three-story brick building. Howard Sutherland is ready to let contract for frame dwelling-house to cost about \$3000. The Reymann Brewing Co. is erecting a cold-storage, bottling and ice-manufacturing plant.

The annual address at the Mississippi Agricultural and Mechanical College is to be made on June 19 by Mr. D. A. Tompkins of Charlotte, N. C., who designed and supervised the construction of the textile school of the institution.

FOREIGN TRADE.

This department is designed to set forth opportunities for the extension of the trade abroad of American manufacturers, and to record facts about the rapidly-developing commerce of the South.

Orders for South America.

The extent of the South American market for railroad and other material is indicated by contracts recently given by the Ecuadorian Association, composed of British and American capitalists. The association is constructing a railroad in Ecuador, and it is announced has already placed contracts for 46,000 tons of rails, twenty locomotives, 20,000 tons of bridge material and 300 freight cars—all with American firms. Another order is for 500,000 ties and 20,000 barrels of cement. Twenty-five additional locomotives and 1700 cars will also be purchased in the near future. In a recent interview Mr. Archer Harman, managing director of the association, is quoted as saying that fully \$7,000,000 will be expended for American products before the railroad is completed. It is expected to open up a territory in Ecuador which will offer an extensive market for American agricultural machinery.

Commerce of Gulf Ports.

A summary compiled by the bureau of statistics for the ten months ending April 30 last shows the commerce of New Orleans has increased at a remarkable rate. The export value of merchandise shipped during this period was \$135,526,000, compared with \$76,855,000 for the ten months ending April 30, 1899. These figures are exceeded only by New York, Boston, which has ranked as the second export city, showing but \$119,363,000 for the period ending April 30 last, and Philadelphia \$66,318,000 for the same period. This remarkable increase is largely attributed to the progressive policy pursued by the railroad lines having terminals at New Orleans, such as the Illinois Central, the Louisville & Nashville, the Texas & Pacific and the Southern Pacific, which have been steadily working for the city's commercial development.

Increased Vessel Service.

The company operating the Hogan Line of steamships has made arrangements for a service which will continue throughout the year between Galveston, Havre, France, and Rotterdam. These vessels have carried cotton during the season, but have been taken off the route during certain portions of the year. It is believed that the miscellaneous ocean freight offering will be of sufficient quantity to operate a monthly and possibly a more frequent schedule between the ports mentioned.

An analysis of statistics recently compiled show good reason for additional steamship tonnage to Gulf ports. During the fiscal year of 1900 Galveston increased the value of its exports \$7,000,000 and New Orleans \$28,000,000.

To Deepen Suez Canal.

The Suez Canal Co. has decided to deepen its waterway to allow vessels drawing twenty-six and one-quarter feet to pass through it. At present the canal will accommodate vessels of twenty-five and one-half feet in draft. The estimated cost of the improvement will be about \$5,000,000. A recent report of the company shows that 3441 vessels passed through the canal in 1900, representing nearly 10,000,000 tons. The total receipts amounted to about \$19,000,000, while the expenses aggregated about

\$6,000,000, not counting interest on bonds and other obligations.

Notes.

Shipments of flour are being made from Newport News in large quantities. During one week recently 71,575 barrels were exported.

It is announced that the Lorain Steel Co. of Lorain, Ohio, has been successful in securing an order for steel rails to be used in building a street-railway system in Yorkshire, England. It is reported that the American company's bid was 10 per cent. less than any of the European competitors.

The Vogelmann Line of steamships, which is in service between Norfolk and European ports, is carrying cargo from both Portsmouth and Norfolk. The steamship Nordlap of this line recently cleared for Bremen with 400 tons of peanuts, in addition to miscellaneous cargo. The traffic includes phosphate rock, lumber and cotton.

Mr. L. H. Daniels of Huettenebach Company, 4 Fenchurch avenue, London, E. C., writes to the Manufacturers' Record that the branches of his company in the Straits Settlements, the Malay Peninsula and Sumatra have for some time past devoted their attention to American manufactures, and that there is a good opening there for various kinds of machinery (except agricultural), hardware, cheap glassware, leather, buggies, canned provisions, flour, lard, cotton piece goods, cheap cotton undershirts, iron and steel.

For the Coasting Trade.

Arrangements are being made to construct a schooner, which will be used in the coasting trade between Northern and Southern ports, which will be the largest fore-and-aft-rigged vessel yet built in the United States. It will carry seven masts, will have a hull of steel, and will be 333 feet in length and 50 feet beam, with a carrying capacity of 6000 tons. The estimated cost of the vessel is \$250,000. It is understood that President Charles K. Lord of the Consolidation Coal Co. of Baltimore and G. Crowley of Taunton, Mass., are interested in the syndicate which proposes building the schooner.

Announcement was made recently of the formation of the John Rudisill Manufacturing Co. to build a cotton mill at Lincolnton, N. C. This enterprise has permanently organized, with directors Messrs. A. P. Rudisill, M. R. Rudisill, R. L. Mauney and D. A. Beam. John Rudisill is president; E. A. Rudisill, vice-president, and J. M. Roberts, secretary-treasurer. The mill building will be 52x140 feet in size, and work on it will commence July 1. The spindles will number 2000 and the product will be yarns or warps, possibly both. The investment will be about \$30,000. Water-power will be used, an upright wheel to be installed and a quarter-turn rope-drive used.

The Nokomis Cotton Mills of Lexington, N. C., has completed its plant, and operations have commenced. The main building is three and two stories high, 75x344 feet, with capacity for 12,000 spindles and 350 looms. At present but 5500 spindles and 150 looms are in place. This company is capitalized at \$100,000, with privilege to increase to \$500,000. The product is plain gray goods.

The Alabama League of Municipalities has been organized, with the following officers: President, John B. Weakley, mayor of Florence; vice-president, E. B. Joseph, mayor of Montgomery; secretary, W. M. Drannen, mayor of Birmingham; treasurer, T. T. Huey, mayor of Bessemer.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Electrically-Driven Cotton Mill.

Announcement was made last week of the completion of the Rosemary Manufacturing Co.'s plant at Roanoke Rapids, N. C. The details of this plant are of such interest as to warrant the presentation of further details, and an illustration of the mill is given on this page. Fred S. Hinds, mill architect and engineer, of Boston, Mass., furnished the designs and plans for equipment. The main structure is 104x322 feet, and in the two-story section will be placed the packing, carding and spinning equipments, while the weave department will be in the first floor of weave shed, and in basement of which the clothroom, repairshop and heating system (furnished by B. F. Sturtevant Co. of Boston) will be placed. The spindles (spinning frames furnished by Fales & Jenks, Providence, R. I.) will number 6000, and the looms (furnished by Draper

First, all cross-timbers usually running across the skylights are omitted, thus avoiding shadows on the goods; second, one skylight spans two bays, instead of one each, and is so constructed that a flat space of about thirty inches is left between each skylight, this space having the regular flat mill roof and tar and gravel roofing. In this mill it was convenient to face the skylights to the north, and with the south wall, a blank wall, little inconvenience will be had from direct sunlight. These skylights are glazed with three-sixteenths-inch ribbed glass, set without putty, and provided with proper condensation gutters.

The cards, drawing and roving were supplied by Saco & Pettie Machine Shops, Newton Upper Falls, Mass.; spoolers by Easton & Burnham Machine Co., Pawtucket, R. I.; shafting by Hyatt Roller Bearing Co., Harrison, N. J.; pickers by A. T. Atherton Machine Co., Pawtucket; slanders and elevators by Cohoes (N. Y.) Iron Foundry & Machine Co.

Cotton in Hungary.

It is intended this year to essay the cultivation of the cotton plant in Hungary. It is said that it will ripen in the southern part of that kingdom. The efforts to grow cotton in the lower provinces of Asiatic Russia, in the same latitude as Hungary, have been successful. It is probable, says United States Consul

Textile Notes.

The Bennettsville (S. C.) Cotton Mills has decided upon an increase of capital stock from \$200,000 to \$250,000.

Frank Heireman of Austin, Texas, contemplates establishing a cotton mill or organizing a company for the purpose.

The Petersburg (Va.) Hosiery Co. has let contract for the erection of an additional building, two stories high, 40x100 feet, to cost nearly \$7000.

In connection with a colony to be established in Georgia by the Volunteers of America, Gen. Ballington Booth, commander-in-chief, it is proposed to build cotton mills.

Efforts continue to be made at Harrisburg, N. C., to ensure the erection of the cotton factory lately mentioned as proposed. M. H. Caldwell of Concord, N. C., has charge of the enterprise.

Oxford Knitting Mills of Barnesville, Ga., will add a plant for bleaching, and the necessary equipment has been ordered. The new department will have capacity for about 500 dozen pairs of underwear daily.

Fairmont (S. C.) Mills has been put in receivers' hands preparatory to a reorganization of the company and a continuation of operations. The plant has over 6000 spindles, and the capital stock is \$50,000. It is said the plant is worth about \$125,000.

The Fairfield Cotton Mills of Winnsboro, S. C., states that its increase of capital stock is made for the purpose of paying for the additions and improvements recently completed. The new spindles number 5000 and the looms 190, thus about doubling the original plant. The increase named is from \$175,000 to \$250,000.

Messrs. E. B. Wilbur, Geo. A. Summer, James McIntosh, O. B. Mayer, J. F. Wright, C. J. Purcell and F. N. Martin of Newberry, S. C., have incorporated the Molohon Manufacturing Co., with capital stock of \$200,000, for cotton manufacturing. Mr. Wilbur was reported recently as forming company to build 10,000-spindle cotton factory.

The knitting mill to be built at Portsmouth, Va., and reported last week, will be located on the lands of the National Trust Co. (of Washington, D. C.) The building will cost \$10,000, as has been stated, but the machinery for knitting, etc., has not been bought yet. L. B. Whatley, No. 1 Kinn Building, Portsmouth, can be addressed for information.

Chinnabee Cotton Mills of Talladega, Ala., mentioned last week, is pushing work on its buildings, and expects to have them completed by July 1. The main structure will be 75x250 feet, and in it will be installed 5000 spindles, which machinery is expected to be in operation by August 15. This \$100,000 company chartered last winter, and has since been actively at work on the plant's construction.

Wahneta Knitting Mills of Cedartown, Ga., has obtained contract from the government to manufacture 18,000 garments of cotton knit underwear. The operatives' force will be doubled, so that this order can be filled promptly. The company is making improvements to its plant, including the installation of a dynamo for lighting purposes, drilling of a deep well for water supply, erection of 10,000-gallon tank and installation of a larger engine.

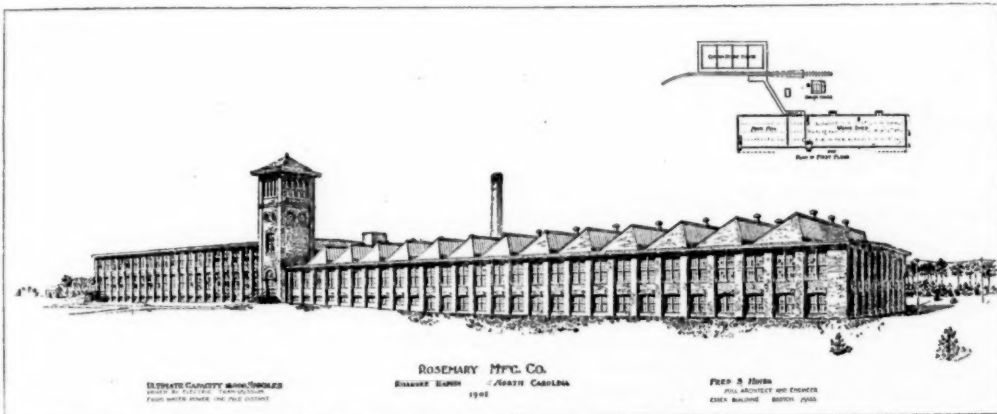
The United States Cotton Duck Corporation, recently announced with details, filed its charter last week. The directors were chosen, and, in turn, they elected officers—S. Davies Warfield, chairman of directors; Richard Cromwell, president; J. Spencer Turner, James E. Hooper and Wm. H. Wellington, vice-presidents; David H. Carroll, secretary; Charles K. Oliver, treasurer, and Sidney E. Coolidge, assistant treasurer. The general office will be at Baltimore. The company controls practically the entire output of cotton duck in this country. Its spindles aggregate about 400,000, and its authorized capital is \$50,000,000.

QUOTATIONS OF COTTON YARNS.

By Buckingham & Paulson, New York, Philadelphia and Chicago, June 11.

No. 10s-1 and 12s-1 warps.....	12 @—
No. 14s-1 warps.....	12 1/2 @13
No. 16s-1 warps.....	13 @—
No. 20s-1 warps.....	13 @13 1/2
No. 22s-1 warps.....	13 1/2 @—
No. 26s-1 warps.....	14 @—
No. 6s to 10s bunch yarn.....	12 @—
No. 12s-1.....	12 1/2 @—
No. 14s-1.....	13 @—
No. 16s-1.....	13 @—
No. 20s-1.....	13 @13 1/2
No. 22s-1.....	13 1/2 @—
No. 26s-1.....	14 @—
No. 10s-2 ply soft yarn.....	12 @12 1/2
No. 12s-2 ply soft yarn.....	12 1/2 @13
No. 14s-2 ply hard.....	12 @—
No. 16s-2 ply hard.....	12 1/2 @—
No. 18s-2 ply.....	12 1/2 @—
No. 20s-2 ply.....	13 @—
No. 22s-2 ply.....	13 1/2 @—
No. 24s-2 ply.....	14 @—
No. 26s-2 ply.....	14 1/2 @15
No. 30s-2 ply yarn.....	22 @—
No. 40s-2 ply.....	22 @—
No. 8s-3, 4 and 5 ply.....	12 @—
No. 20s-2 ply chain warps.....	13 1/2 @13 1/2
No. 24s-2 ply chain warps.....	14 @14 1/2
No. 26s-2 ply chain warps.....	14 1/2 @15
No. 30s-2 ply chain warps.....	15 @—
No. 16s-3 ply hard twist.....	13 @—
No. 20s-3 ply hard twist.....	13 1/2 @—
No. 26s-3 ply hard twist.....	14 1/2 @—

Prices nominal; market very dull.



ROSEMARY MANUFACTURING CO.'S ELECTRICALLY-DRIVEN MILL—6000 SPINDLES—AT ROANOKE RAPIDS, N. C.

Company, Hopedale, Mass.) will number 200. Building is arranged for doubling this equipment.

All machinery will be electrically driven. Power will be furnished by the Roanoke Navigation & Water-Power Co., current to be generated by two generators, 200 kilowatts each, at 440 volts, and transmitted directly to mill motors, over a distance of one mile. The current will be stepped up to 6000 volts and then stepped down to 200 volts by transformers just before entering the plant. The motors consist of three 100-horse-power induction machines of alternating-current type. The weaveroom motor is located in shafting-room basement on brick foundations, the power being transmitted by four belts, two on each side, to line shafting. The picking and carding rooms have a direct-connected inverted motor, and the spinning-room an inverted motor transmitting power by four belts, two on each side, to the countershafts. The Westinghouse Machine Co. furnished the electrical equipment through Morton, Reed & Co., its Baltimore agents.

The amount of light in the weaveroom being in this case a very important consideration, led to the adoption of a weaved and the "saw-tooth" roof. Special study was necessary to eliminate the objections usually made to this form of roof, and two of the most important improvements made in the construction of "saw-tooth" skylights are as follows:

Mahin, who reports these facts, that bounties will be paid the cotton planters, in keeping with Hungary's liberal treatment of the founders of factories. More or less success is now attending the culture of cotton in Spain, Southern Italy, Macedonia and Malta.

Another Mill at Huntsville.

It is announced that a \$100,000 textile mill will be located at Huntsville, Ala., this being the eighth mill to be established there. Charles L. Poore of New York and other Northern capitalists will be interested with W. I. Wellman, president of the Farmers and Merchants' National Bank of Huntsville, in organizing the new company. Plans and specifications are now in the possession of Mr. Wellman, and it is expected that contracts for buildings and machinery will be closed at once. The plant will weave, knit and dye.

A \$20,000 Knitting Mill.

Messrs. Robert Hendricks, L. P. Hendricks, C. E. Frost and J. W. Frost of Athens, Ala., will establish a \$20,000 knitting mill. Contracts will be placed at once for erection of a two-story building, with electric plant, steam heat, etc., and equipment of knitting machinery for a daily capacity of 200 pairs of hose. A dyeing department will also be conducted.

The Board of Trade of Little Rock, Ark., is endeavoring to secure the acceptance of a proposition for the establishment of a \$100,000 cotton factory. W. R. Jones, said to be an experienced cotton manufacturer, is interested.

J. W. Sproles of Greenwood, S. C., and associates will establish a factory to make bobbins for textile mills. They will invest about \$50,000. Estimates on the necessary equipment are desired, and correspondence invited from manufacturers.

Eastern capitalists have become interested in the movement for a cotton mill at Huntingdon, Tenn., reported last week. It is stated the parties have offered to invest \$75,000 if local investors furnish \$25,000 of the capital. J. N. McN. Wright continues to promote the movement.

The Falls City Jeans & Woolen Co. of Louisville, Ky., has decided to add the manufacture of cassimeres to its product. Complete equipment of machinery has been ordered, including eleven sets of 60-inch cards. The mill's capacity will be 2,000,000 yards of cloth per annum.

The Lewis Jones Knitting Co. of Winchester, Va., will establish a branch plant at Brunswick, Md., where special advantages have been offered. The town furnishes free water, exemption from taxation and rent of building. The company will install fifty knitters. Its Winchester plant is a \$45,000 investment.

RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

Dothan, Hartford & Florida.

The plan to build a road between Dothan, Ala., and St. Joseph, Fla., has been revived by the Dothan, Hartford & Florida Railroad Co. J. P. Pelham of Dothan has recently been negotiating with Northern capitalists with the view of floating bonds to finance the undertaking. It is reported that the necessary arrangements have been made, and construction will begin in the near future. The road will be about eighty miles in length if built, passing through Southern Alabama and Northern Florida. St. Joseph, the southern terminus, is a seaport, and it is understood that thirty feet of water can be obtained at its docks by dredging.

New Line in Missouri.

The Springfield, Jefferson City & Chicago Railroad Co. has been organized to build a line through a section of Missouri and has made surveys between Springfield and Versailles, a distance of 121 miles. In a letter to the Manufacturers' Record William Woodburn, president of the company, writes that the road will be built from Springfield to a point beyond the Missouri river, and that it is expected to receive bids for constructing the southern section in a few weeks. The headquarters of the company are at Des Moines, Iowa. C. B. Adams is vice-president; J. K. Moller, secretary and treasurer, and J. G. Briggs, general manager.

Gulf & Interstate.

President F. H. Britton of the St. Louis Southwestern Railway Co. of Texas writes the Manufacturers' Record that the report that this company has purchased the Gulf & Interstate Railroad is erroneous. A dispatch from Galveston is to the effect that the present owners of the Gulf & Interstate have decided to rebuild it immediately, on account of the possible oil traffic which it will secure. The road, which was partially destroyed by the storm which damaged Galveston, extends from Galveston harbor to Beaumont. H. S. Spangler is receiver of the company.

Mobile, Jackson & Kansas City.

A dispatch from Pittsburg, Pa., states that President F. B. Merrill of the Mobile, Jackson & Kansas City Railroad Co. has recently purchased 6000 tons of steel rails from the Carnegie Steel Co. with which to complete the extension of the Mobile, Jackson & Kansas City, under construction between Merrill and Hattiesburg, Miss. It is also understood that the company is negotiating for six locomotives to be built by the Pittsburg Locomotive Works.

Chicago, Rock Island & Pacific.

The additional issue of \$10,000,000 in stock to be made by the Chicago, Rock Island & Pacific Railway Co. is partly for the purpose of financing extensions under contract in the Southwest, including the line being built from Liberal, Kans., to a connection with the El Paso & Northeastern Railroad. Over seventy miles of this line have been completed, and train service upon the section is now in operation.

Railroad Notes.

George W. Baldwin of Savannah and others have purchased a controlling interest in the Columbus Street Railway Co. of Columbus, Ga., and Mr. Baldwin has

been elected president. Mr. J. F. Flournoy has been elected vice-president and general manager.

Reports compiled by the railroad commission of Mississippi show that the assessed valuation of railroad property for 1900 is \$28,500,000, an increase of \$1,250,000 over the preceding year. It is calculated that 141 miles of new line have been built since the last report.

According to a dispatch from Atlanta, the Southern Railway Co. has begun the work of extensive improvements in that city. It will increase the capacity of its freightyards, construct a new roundhouse for locomotives, also a coal-storage plant with a capacity of 3000 tons. The roundhouse will accommodate fifteen engines.

The Southern Railway Co. has recently improved its passenger service between Atlanta and Washington by adding what is known as the "club" car to its through trains. The car contains barber shop, bathroom, smoking-room, as well as library and an observation compartment, and is of the latest type built by the Pullman Company.

A dispatch from New Orleans is to the effect that arrangements have been made by which the Texas & Pacific and the Southern Pacific systems will utilize the passenger depot of the Illinois Central in that city. It is also stated that the Louisville & Nashville will probably use the same terminal. For some time past negotiations have been under way with this idea in view.

The Southern Car & Foundry Co. of Anniston, Ala., has now about 700 men at work in its plant, and the number will be increased to more than 1000 within the next few weeks, according to the Hot Blast. The plant is at work upon an order for 200 cars for the New Orleans & Northeastern Railroad, and has recently received orders for 325 cars for the Florida East Coast Railroad and one for 1200 cars for the Southern Railway, 700 of which will be built at Anniston.

An unpublished diary by Francis Parkman, the great historian, will appear in the July Scribner's. It is his account of a journey made through and around Lake George in 1842. It is said to be full of his acute and satirical observations of men and nature.

Representatives of the business organizations of New Orleans are arranging for a fitting reception to the great government dry-dock for Algiers, La., now approaching completion at the works of the Maryland Steel Co., Sparrow's Point, Md.

Atlantic City Special—Through Vestibule Fast Express Train Between Washington, Baltimore and Atlantic City Every Week-Day via Pennsylvania Railroad.

Beginning with train leaving Washington June 14, and with train leaving Atlantic City June 15, the Pennsylvania Railroad Co. will re-establish the Atlantic City Special every week-day between Washington and Atlantic City via the Delaware River Bridge Route, the only all-rail line, on the following schedule:

WEEK-DAYS.	
Lv. Washington.....	1.25 P. M.
" Baltimore.....	2.20 "
" Wilmington.....	3.43 "
" Chester.....	4.01 "
Ar. Atlantic City.....	5.40 "
WEEK-DAYS.	
Lv. Atlantic City.....	2.15 P. M.
Ar. Philadelphia (Broad St. Sta.)	3.36 "
Lv. Philadelphia (Broad St. Sta.)	3.48 "
Ar. Chester.....	4.08 "
" Wilmington.....	4.28 "
" Baltimore.....	5.55 "
" Washington.....	7.00 "

This train will be composed of Pullman vestibule buffet parlor cars, vestibule combined car, and Pennsylvania Railroad wide vestibule coach.

COTTONSEED OIL.

This department is open to the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

Cottonseed-Oil Notes.

The Landry Cotton Oil Mills at Opelousas, St. Landry parish, Louisiana, were practically destroyed by a tornado on the 7th inst. The loss to the company is estimated at \$25,000.

A charter was granted last week to the Madill Oil & Cotton Co. of Sherman, Texas, with a capital stock of \$100,000. The incorporators are N. B. Birge, Geo. P. Chapman and Thomas Forbes, Jr.

The Grayson Oil & Cotton Co. of Sherman, Texas, was chartered last week, with a capital stock of \$150,000. The company will build and operate cotton-oil mills and cotton gins. The incorporators are J. A. Stanfield, J. H. Wharton and R. A. Chapman, Jr.

The exports of cottonseed products from the port of Galveston, Texas, for the commercial year of 1900-1901 to June 7 aggregated 270,920 tons, and for the twelve months of 1899-1900 they amounted to 217,020 tons, against 267,098 tons for the year 1898-1899.

The Roff Oil & Cotton Co. of Sherman, Texas, was granted a charter last week, with a capital stock of \$100,000. The company purposes to manufacture and sell cottonseed oil and other cottonseed products. The incorporators are John Grant, J. F. Holt and Turner Wilson.

The market at Texas points for cottonseed oil and other cottonseed products is about steady, with a moderate offering. Prime crude oil, loose, is quoted at 24½ to 25 cents, and prime summer yellow oil, 28 to 29 cents; linters, per pound, 2 to 2½ cents, all f. o. b. mill at interior points in the State; hulls, \$5 per ton; cottonseed cake, \$19.50 to \$20.50, and cottonseed meal, \$20 to \$21 delivered in Galveston.

It is stated that the Virginia-Carolina Chemical Co. has purchased the entire property of the Atlantic Cotton Oil Co. of Sumter, S. C., for \$300,000 cash. The Atlantic Cotton Oil Co. has a 60-ton oil mill in Sumter, a 60-ton mill in Camden, a 60-ton mill in Bennettsville, a 40-ton mill in Gibson, N. C., and a refinery in Charleston, and is capitalized at \$250,000. No particulars of the deal or of the future plans for the plants of the company have been obtained.

The Oil-Mill Superintendents' Association of Texas met in conjunction with the Texas Cottonseed Crushers' Association at Dallas on the 6th inst. President Parkhouse occupied the chair, and R. M. Boring of San Marcos acted as secretary. The day was devoted principally to the reading and discussion of the annual message of President Parkhouse. On the 7th inst. the association concluded its business by the election of the following officers for the ensuing year: President, R. H. Schumacher of Navasota; vice-president, G. A. Bungarten of Schulenburg, and R. M. Boring of San Marcos, secretary and treasurer.

The following are the official quotations of cottonseed products, as posted at the New Orleans Cotton Exchange on the 11th inst.: Prime refined oil in barrels, per gallon, 35¼ cents; off refined oil in barrels, per gallon, 33½ cents; prime crude oil, loose, per gallon, 29 cents; prime cottonseed cake per ton of 2240 pounds, \$24.25; prime cottonseed meal per ton of 2240 pounds, \$23.75; soap stock, per pound, 1.07 cents; linters, choice, per pound, 3¼ cents; A, 3½ cents; B, 3¾ cents; C, 3 cents; cottonseed in sacks delivered at New Orleans, per ton

of 2000 pounds, \$14; in bulk delivered at New Orleans, per ton of 2000 pounds, \$13.

The seventh annual convention of the Texas Cottonseed Crushers' Association met in Dallas, Texas, on the 6th inst. In the absence of the president, Marion Sansom of Alvarado, Vice-President J. E. Farnsworth presided. The annual report of Secretary Robert Gibson was submitted. The principal action taken was the adoption of a new set of rules with reference to measurement and classification of the products, claims, arbitration and miscellaneous regulations. The afternoon session was devoted chiefly to the reading of papers by members and a general discussion of the points touched upon. The most important discussion was on the use of Texas oil for fuel. No final action on the fuel question was taken. The closing paper of the session was "Filtering Oil," prepared by H. J. Theissen of Sherman. Considerable interest was aroused by the suggestions advanced. At present very few Texas mills filter their product, but the importance of so doing was generally admitted, the object being to raise the grade of the oil and lessen the liability of souring or spoiling. The convention concluded its work on the 7th inst. The principal business of the morning was the election of officers for the ensuing year, which resulted as follows: President, W. D. Kyser of Marlin; vice-president, F. H. Bailey of Paris; secretary, Robert Gibson of Dallas; treasurer, R. K. Erwin of Waxahachie. The new executive committee is composed as follows: W. D. Kyser, Marlin; F. H. Bailey, Paris; Robert Gibson, Dallas; R. K. Erwin, Waxahachie; A. P. McCord, Clarksville; Ed Woodall, Iaska; P. J. Manning, Terrell; R. L. Hamilton, Corsicana; C. C. Littleton, Weatherford.

A big lumber combination that will take in all the lumber firms in the eastern part of Long Island is said to be forming in Suffolk county, New York. According to reported plans, the new company will have a capital stock of \$1,250,000, the shares to have a par value of \$100. A special committee is arranging the details of the combination.

It is said that at Mt. Pleasant, Tenn., contracts have been closed between January 1 and June 1 reaching an aggregate of 155,000 gross tons of phosphate rock for domestic shipment. The total domestic shipment of rock for 1900 was 235,000 tons, so that shipments for the present year are showing a material increase.

The Old Granite State Right In It.

New Hampshire is not only a summer playground, but for that early vacationist, the fisherman, it is a rendezvous of wide renown.

Its mountains are known far and wide for their grandeur, but they are no more widely known than its lakes, of which few sections of the country have a greater number.

Some of them, like Winnepesaukee and Sunapee, are of great area and renowned fishing grounds, while others, numbering well towards a hundred, are of varying size, but nevertheless excellent fishing resorts.

Every one of New Hampshire's lakes is more than well stocked with the choicest varieties of every kind of fish, and invariably their size is extraordinary.

There is one very prominent and favorable feature which makes the lakes of New Hampshire popular with the fishing fraternity, and that is the exceptional facilities for reaching them. The general passenger department of the Boston & Maine Railroad, Boston, issues several descriptive pamphlets on outdoor sports, namely, "Fishing and Hunting," "Lakes and Streams," "Lake Sunapee," either of which is sent to any address upon receipt of a two-cent stamp for each book. If you are a fisherman, send for them; they will interest you.

PHOSPHATES.

Big Fertilizer Works at Atlanta.

Messrs. Armour & Co. of Chicago, operating as the Armour Fertilizer Works, who recently completed a very extensive fertilizer plant at Baltimore having a capacity of 60,000 tons annually, and who already have large works at Nashville, Tenn., and Jacksonville, Fla., have commenced the construction of very large fertilizer plant near Atlanta, to cost about \$250,000. The site is a 12-acre tract of ground located on the Southern and the Seaboard railroads. The mixing building will be 200x500 feet. The nominal capacity of the plant is placed at 60,000 tons annually, but in connection with it will be established large acid works, which will admit of an annual output of 75,000 tons of fertilizers of all kinds if desired. The acid plant will have a capacity of sixty tons of acid daily. The raw material will be drawn from the Armour slaughter-houses in the West, which will supply tankage and bones, cottonseed products from the South, potash salts from Germany and phosphate rock from Tennessee and Florida. The entire plant will be of the most modern construction, equipped throughout with electric power and with the best mechanical appliances for handling the product at the lowest possible cost, thus reducing manual labor to a minimum. The annual output, it is expected, will aggregate in value from \$1,250,000 to \$1,500,000.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., June 12.

In all departments of the local phosphate market there is a quiet tone prevailing, and manufacturers of fertilizers are not buying in large lots. Prices, however, for all descriptions of phosphate rock continue to rule very steady. The following charters were reported last week: British steamer Stella, 1545 tons, from Tampa to Stettin with phosphate rock at 19/6, June-July; French steamer Burgundia, 1604 tons, from Tampa to St. Louis-du-Rhone with phosphate at 19/6, and British steamer Red Jacket from Tampa to Glasgow with phosphate at 16/6, June. The industry at points of production in the Southern phosphate field is at present in a healthy condition, and mines are being more vigorously worked, while the movement to both domestic and foreign sections is of better volume. In South Carolina the various companies are all busy, and the output at the moment is fully ample for a moderate demand. The phosphate commissioners will soon go on their annual tour to inspect the mines at Beaufort and other points, and their report is looked forward to with considerable interest. Prices for domestic and foreign rock are steady at \$3 for crude rock at the mines and \$4.50 for hot-air-dried f. o. b. vessel in Ashley river. The market for both hard rock and pebble in Florida shows indications of improvement, while the demand from Europe is better. Shipments during late June and July. The phosphate mines at Mt. Pleasant are being steadily worked, but in some instances labor is very scarce, which greatly restricts the operations of the various companies. Rumors of a consolidation of phosphate companies have been again revived, but it is stated that the consummation of a combine is as remote as ever. The market in its present shape is steady, and holders firm in their views. Shipments to Europe of Tennessee rock from Pensacola continue, and there is a slightly better inquiry at Mt. Pleasant for export

rock. The movement in domestic rock is fairly active, and considerable shipments are being made to the interior.

Fertilizer Ingredients.

The ammoniate market has ruled very steady during the past week, but the heavy sales during late May causes a somewhat quiet tone to trade. The demand from Eastern buyers, however, continues, while there is also some Southern inquiry. Stocks in the West are ample for present wants, and are firmly held by packers.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)....	\$2 67 1/2 @ 2 70
Nitrate of soda, spot Balto....	1 85 @ 1 90
N. York.....	1 85 @ —
Blood.....	2 32 1/2 @ 2 35
Azotine (beef).....	2 35 @ —
Azotine (pork).....	2 35 @ —
Tankage (concentrated).....	2 10 @ 2 12 1/2
Tankage (9 and 20).....	2 30 & 10 @ 2 35 & 10
Tankage (7 and 30).....	20 00 @ 21 00
Fish (dry).....	27 50 @ 30 00

Phosphate and Fertilizer Notes.

The International Phosphate Co. of Mt. Pleasant, Tenn., has closed down its plant at the Arrow mines and moved to its Solita property.

The Spanish steamship Berrie cleared last week from Savannah, Ga., for Rotterdam with 3289 tons of high-grade Florida phosphate rock, and the Norwegian steamship Eidsvold for Hamburg with 3250 tons from Fernandina, Fla., and other cargo.

It is stated that Governor McSweeney of South Carolina will soon call a meeting of the State phosphate commission. The present purpose is to call the initial meeting in Charleston, where several parties interested in the phosphate industry may be seen, and from Charleston go to the phosphate fields of Beaufort.

The phosphate market at Mt. Pleasant for the week ending June 5 is reviewed by E. L. Gregory in Mt. Pleasant Chronicle as follows: "Market has been more active the past week. One sale aggregating about 20,000 tons of 75-5-3 was closed at \$2.75 net, and a small sale of export for prompt delivery at \$3.50. Movement of stocks on hand has slightly increased during the week. Mining is being materially retarded by scarcity of labor, and those having heavy shipments during July and August are becoming somewhat uneasy over the labor situation."

It is not generally known that, in addition to her phosphates, her valuable climate, her lumber, fish, fruits and vegetable industries, Florida is rich in mineral deposits. She has kaolin, ochres, fire and aluminum clays and gypsum and fuller's earth of great extent and finest quality. She has building stone and a soft magnesian limestone that produces excellent cement. Iron has been found in several localities, and there are strong indications of asphalt, soft coal, natural gas and petroleum. Strange to say, none of these valuable deposits have been fully investigated or developed.

The Louisville Courier-Journal of the 10th inst. stated on the authority of a Louisville man who has just returned from Middle Tennessee that the scheme of combining all the large phosphate mines in and around Mt. Pleasant, Tenn., will possibly culminate in the near future in one company being formed to take charge of all the mines and operate them with a combined capital of about \$1,000,000. The large companies controlling the phosphate industry in Tennessee are the Tennessee Phosphate Co., the International Phosphate Co., the Howard Phosphate Co., the Central Phosphate Co., the Petrified Bone Mining Co., the Bluegrass Phosphate Co., the Columbian Phosphate Co., the Ridgely Phosphate Co. and the J. T. Craik Sons & Co.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record,
Baltimore, Md., June 12.

A greater degree of activity has characterized operations in the local lumber market during the past week, and in several lines a material improvement is notable. There is a better demand from builders, both in the city and from towns adjacent. The North Carolina pine trade is looking up, and there is a better demand for certain grades and dimensions. Box lumber is in fair request, and yardmen have been buying in larger lots. The foreign inquiry for North Carolina pine is improving. Advances from milling points in Virginia and Eastern Carolina are very favorable, and stocks are not accumulating to any great extent. In the white-pine trade lumber is very steady, with a moderate demand, and stocks ample. There is an improvement in cypress, and the market is firm, with a fair inquiry. The hardwood trade continues fairly active, with a good demand from out-of-town dealers. Prices continue firm for all desirable grades. Stocks at milling points are not excessive, and frequent rains recently have restricted operations. The foreign export trade in hardwoods continues light, with no indications of an improvement in the near future.

Charleston.

[From our own Correspondent.]
Charleston, S. C., June 10.

Trade in many departments of the lumber industry in this section shows signs of revival, and the demand for both yellow pine and cypress is now showing considerable activity. The past week, however, in the local lumber market has been quiet, with shipments light. The Clyde steamers for Boston took out only about 75,000 feet of lumber, and New York steamers of the same line cleared with light shipments of wood products. The schooner J. Edward Drake cleared for Portland, Me., with 594,000 feet of lumber. The list of values for all grades of lumber is steady; merchantable, \$14 to \$16 for city-sawed, square edge and sound, \$9 to \$14 for railroad, \$8.50 to \$12 for raft. Dock timber is quoted \$5 to \$8; shipping, \$8 to \$10. Shingles are in good demand at \$4.50 to \$7.50 per thousand. All reports from Georgetown show unusual activity among the mills, and shipments are generally liberal, both in yellow pine and cypress. The movement in coastwise tonnage is light, and rates generally steady at unchanged figures. The schooner Percy Birdsall was chartered last week to load here with crossties for New York at 14 cents.

Savannah.

[From our own Correspondent.]
Savannah, Ga., June 10.

The lumber market in this section continues to show more encouraging features, and the movement through this port is likely to show a better volume for some time to come. The demand from the North is now more pronounced, and as the building season in that section has set in, larger quantities of lumber will likely go forward during the summer. Some large cargoes left port last week. Among them were the schooners Margaret A. May for Baltimore with 383,000 feet, the Susie H. Davidson with 392,922 feet and the James Boyce, Jr., with 492,275 feet. The total shipments for the week were nearly 5,000,000 feet. The

total foreign shipments of lumber for May were valued at \$14,208. The movement at Brunswick is very satisfactory, and the market in good shape. Reports from interior milling points reveal the fact that all mills are well supplied with orders, inquiries being numerous and the demand active. The total domestic shipments of lumber amounted to 11,297,188 feet, and foreign shipments to 12,535,812 feet. At Darien the market shows some remarkably good features, shipments for May amounting in value to \$117,310. The crosstie industry in the Brunswick district is now showing up well, with some good orders on file and heavy shipments expected during the summer. There is no improvement in the demand for coasting lumber tonnage, though previous rates are well maintained.

Mobile.

[From our own Correspondent.]
Mobile, Ala., June 10.

The lumber and timber market continues to show a fair volume of trade, but the lumber business is generally very quiet in comparison with the same period last year. Shipments of lumber for the past week aggregate 2,527,961 feet, and for the season 88,408,595 feet, against 120,718,756 feet last season. Business with Cuba and South and Central America continues light. Stocks of lumber at all milling points in this section are not accumulating to any extent, and the demand shows a slight improvement over last week. The timber market continues firm at 12 1/2 to 13 cents per cubic foot for sawn, 40-foot basis. Hewn timber is steady at 13 to 13 1/2 cents per cubic foot; hewn oak is in limited demand at 15 to 18 cents per cubic foot, and poplar at 12 to 12 1/2 cents per cubic foot. Receipts of lumber at Ferry Pass have been more liberal, on account of the high water in the upper rivers bringing out a large quantity of timber. The market, however, continues featureless, and reports from Europe not encouraging. The London Timber Trades Journal of the 1st inst., in reviewing the market, says: "The state of the market here just now is very difficult to define. There is no improvement to record, but, on the contrary, a further depreciation in values; slight, it is true, yet sufficiently marked to be noticeable. Still, there is no dependence to be placed on it. Affairs continue so unsettled that we might be only misleading buyers were we to describe the present downward tendency as likely to last, while it is equally difficult to say when the turning-point of prices will be reached." The shipments of sawn timber last week from Mobile amounted to 168,386 cubic feet, and of hewn timber to 21,316 cubic feet. Southern freights are quiet. There has been some inquiry for deal boats from the Gulf and time contract boats. Charters reported are a Norwegian bark, 1174 tons, from Pensacola to Buenos Ayres with lumber at \$14.25, November-December; schooner Joseph B. Thomas, 1282 tons, from Pensacola to Rosario at \$16; Spanish steamer Telesfera, 2066 tons, from the Gulf to Liverpool or Greenock with timber at 92/6, and British steamer Nutfield, 1673 tons, from the Gulf to Holland with timber at 97/6. Messrs. Fred O. Howe & Co. of Pensacola report the market for freights as follows: "Pitch-pine freights continue about the same—demand limited and no quotable change in transatlantic rates, which rule at £5 5s. to £5 12s. 6d., United Kingdom or Continent; Mediterranean, £5 to £5 5s. For South America the market may be called somewhat firmer; \$14 to \$14.25 is obtainable, Montevideo, Buenos Ayres; Rio, same. Steam freights are £4 10s. to £5 5s., United Kingdom or Continent, according to port."

Memphis.

[From our own Correspondent.]

Memphis, Tenn., June 10.

The first week of June has hardly come up to the expectations of the trade in hardwood circles, though there has been a fair average business for the season. All the mills have had orders enough to keep them busy all the while, and those who do not run mills, but simply deal in hardwoods, have been on the hustle to secure sufficient stock to fill their orders. One of the encouraging features of the situation is the fact that there are signs of returning activity in the domestic East for the various hardwoods. The great building activity that is now apparent all over the country, and which is particularly marked in the East, is said to be responsible for the change for the better. From the North and West business has been about up to the recent average, with ash, poplar and cypress in best demand. Stocks are considerably scarcer than they have been for some time in some lines, notably ash and poplar, as well as cypress. Orders in certain thick-nesses of all three woods have been turned down because the stocks were not in hand in dry stuff. The mills have cut a great deal of these woods during the week, and are preparing for a continuance of the present activity in them, but for the moment this is not a very satisfactory solution of the problem. In the various oaks there are moderate stocks. Quartered white is in rather large supply, as it had been very much of a drag on the market up to a few days ago, but at this writing the demand is of such a character that the stocks will be reduced very rapidly. The plain oaks, both white and red, are not held in large quantities, especially the plain red. Quartered red is dull. Cottonwood shows more accumulation than at any time during the season, the demand for firsts and seconds in this wood failing to show any appreciable change for the better. Commons and culls are moving pretty well among the box trade, and stocks of this class show less accumulation than the firsts and seconds. Gum is in fair call, better, in fact, than for some time, as the tight cooperation men in this district are using considerable amounts of this for the manufacture of a glucose package as a substitute for the oak barrels which have heretofore been used almost exclusively. There are several mills in the interior that are cutting large quantities of this wood for this branch of the trade. At the same time there is an effort making to use this wood in interior finishings, and this is expected also to create a better demand for it. Little gum has been going to the foreign markets during the week. In the various soft woods the mills hereabout have all they could do. There has been no let-up in the building boom.

Beaumont.

[From our own Correspondent.]

Beaumont, Texas, June 8.

There is considerable improvement in the volume of demand this week. The Texas dealers are ordering freely, and salesmen report good business, good prospects and splendid crop conditions. The bulk of the business secured, however, is the result of the extensive building in the towns and cities of the State. Not before in the history of the State has there been such a heavy amount of building done. To this is attributed the fact that prices have maintained such a steady level. May stocks for long-leaf mills show an increase of 2,000,000 feet over April. The figures are 142,000,000. There may be an increase during June amounting to not more than 5,000,000 or 6,000,000 feet, based on present conditions, at the expiration of which time it

is anticipated the new season's business will begin, and from which point it is not likely there will be any further increase of stocks. There is yet some shortage in specific items, particularly in the upper grades. Clear lumber from which to manufacture flooring and ceiling in four-inch widths is by no means plentiful, and in 18 and 20-foot lengths is quite short. Several other lengths in wide finish are short; 2x4, of which for four months there has been a shortage, is getting in better supply, and it is no longer necessary to ship partly dry or green stock on orders. The Western demand is keeping up very well. The timber demand continues to hold its own in volume and price. The railroads are furnishing the largest part of it. The local lumber business of Beaumont is assuming large proportions. One mill alone during May sold through its retail department over 1,000,000 feet of lumber, and two other large mills in the city, it is presumed, did equally well. It is a conservative estimate to put the May lumber business of Beaumont proper at 2,500,000 feet, exclusive of the doors, blinds, etc.

Lumber Notes.

James F. Wellnes of Danville, Pa., wants to correspond with buyers of wood-turned work.

The Charles & Whitcomb Lumber Co. of Jackson, Miss., has been chartered, with a capital stock of \$10,000.

It is understood that Lott & Curry will erect a large saw-mill plant about six miles from Brunswick, Ga., on the Brunswick & Birmingham Railroad.

The plant of the Corinth Lumber Co. at Corinth, Miss., was burned on the 4th inst. The loss to the company is estimated at \$15,000, with only \$4000 insurance.

The Houk-Grant Lumber Co. of Stephenville, Texas, has been chartered, with a capital stock of \$3000. The incorporators are J. H. Grant, A. W. and Whitelaw Houk.

The Rhodes-Haverty Furniture Co. of Fort Worth, Texas, was chartered last week, with a capital stock of \$20,000. The incorporators are A. G. Rhodes, T. F. Frazie and J. J. Haverty.

The Strong Lumber Co., whose extensive saw-mill plant is now under construction at Bristol, Tenn., has ordered thirty new railroad cars, to be used in hauling logs from Carter county to its plant at Bristol.

The Knight Lumber Co. of St. Albans, W. Va., is receiving at present a large supply of logs from Coal river. This company is now erecting a very fine saw-mill on the bank of the Kanawha, opposite St. Albans.

The saw-mill plant of the Estabuchie Lumber Co. at Estabuchie, Miss., with a lot of lumber, were destroyed by fire on the 7th inst. The loss is estimated at about \$30,000, one-third of which is covered by insurance.

Phillips & McEachern will have their new saw-mill near Albion, Fla., running in a few days. Their capacity will be from 50,000 to 60,000 feet of lumber per day. The firm will have a branch railroad four miles long to bring a supply of logs.

The Mississippi Hardwood Manufacturing Co. of Carthage, Miss., has been incorporated, with a capital stock of \$500,000, and purchased 25,000 acres of hardwood timber land, on which it will erect a large saw-mill plant. The office is at Ozark, Miss.

Receipts of lumber at the port of New Orleans for the week ending the 7th inst. amounted to 15,717,000 feet, and from

August 1, 1900, to June 7, 1901, receipts have aggregated 107,797,135 feet, against 83,309,101 feet for the corresponding period in 1899-1900.

Shipments of lumber in superficial feet from the port of Brunswick, Ga., for the month of May aggregated 23,833,000 feet. Of this amount, 12,535,812 feet were foreign. Shipments from the port of Darien, Ga., amounted to 1,773,597 feet domestic and 5,776,000 feet foreign.

The shipments of lumber from the port of Mobile last week aggregated 2,527,061 feet, and for the season 88,408,595 feet. The shipments of sawn timber for the week were 168,386 cubic feet, and of hewn 21,315 cubic feet. The total shipments in superficial feet were 4,803,473.

The St. Lawrence Boom & Manufacturing Co.'s saw-mill, planing mill and sash and door factory at Roncverte, W. Va., are all running on full time, and are well supplied with orders. The company is also loading the 9,000,000 feet "drive" of the West Virginia Pulp & Paper Co. for shipment to the Covington mills.

Tuthill & Patterson of Florence, Ala., are now shipping forty carloads of hardwood lumber from Alabama and Tennessee to Liverpool via New Orleans, Pensacola and Norfolk. The firm are large operators of saw-mills in Alabama and Mississippi, and have made large shipments to Europe during the past year.

The extensive yellow-pine manufacturing plant of J. S. Betts & Co. at Ashburn, Ga., which was destroyed by fire in November last, has been rebuilt. The new mill is a double-circular with a capacity of 100,000 feet a day. There is also a lath mill with capacity of 50,000 per day, a shingle mill of 100,000 capacity and a stove mill that turns out 10,000 staves daily.

It is estimated that there are at present about half a million dollars' worth of logs floating on the Cumberland river. There was last week about 800 rafts tied to the bank of the river at and above Nashville, ten containing about 48,000,000 feet of lumber. About half the rafts are of poplar; oak ranks next, while a number are of hickory, ash, chestnut and walnut.

A stick of pine timber of remarkable dimensions was cut at the logging camps of the Pineopolis Saw-Mill Co. in Colquitt county, Georgia, last week. The stick was forty-six inches in diameter at the butt, sixty-four feet long and thirty-three inches in diameter at the top. It will not be sawed, but will be shipped entire and probably sent to the Buffalo Exposition.

Mr. Richard Dallam of Belair, Md., while in Baltimore last week succeeded in organizing a company for exporting and handling hardwood in logs. The capital stock of the company will be \$200,000, all of which, it is understood, has been subscribed. The company has recently purchased the Foley wharf property at Canton, containing seven acres, with a water frontage of 1150 feet.

It is stated that the John H. Kirby Tie Co. of Houston, Texas, is now turning out ties in the East Texas forests at the rate of between 70,000 and 90,000 per month, all of which are being taken by the Santa Fe Railroad Co. These ties are a part of the 7,000,000 tie contract awarded the tie company by the Santa Fe a few months ago, for the completion of which the company has a period of five years.

The stockholders of the Turner, Day & Woodworth Manufacturing Co. at their meeting last week in Louisville, Ky., decided that they would enter the proposed axe-handle combine, which will

have a capital of \$1,000,000. While no name has been decided upon, it is probable that the company will be known as the Turner, Day & Woodworth Handle Co. The main offices of the company will be in Louisville, Ky. Only two other plants will be in the combine, one located at Huntington, W. Va., and the other at Knoxville, Tenn.

A very important plant to railroad companies is now under construction at Greenville, Texas, by the Missouri, Kansas & Texas Railroad. This plant is the latest of the Wellhouse burnettizing zinc process plants for the treatment of cross-ties with three preparations of zinc, adding about four times the length to the life of a cross-tie. The plant has a capacity of 3000 cross-ties daily, each one of the retorts having a capacity of 545 ties requiring twelve hours' treatment, working a day and night shift of men to treat 1000 ties each daily. The Missouri, Kansas & Texas Railroad is building this plant for its own use, and will put all ties used on its line in Texas through this process.

A New Orleans lumber firm has just received a contract for the cutting and shipping of 3,000,000 feet of red-gum timber. The logs are to go to England, where they will be used exclusively for street-paving purposes. The sap being removed, the heart of the wood is utilized in paving, the work being done somewhat after the manner of the old Nicholson paving. In England, especially in London, Liverpool and Manchester, this character of paving is extensively used. The supply of red gum at points adjacent to New Orleans is practically inexhaustible, and while large quantities are used at home for furniture and other purposes, the demand from foreign sources for paving is destined to become very extensive later on.

The San Francisco (Cal.) Examiner says: "There can be no doubt that there is in process of formation a combination having for its ultimate object the gathering in of all the redwood interests on the coast. The capital of the combination will be somewhere between \$15,000,000 and \$20,000,000. The land which it is proposed to acquire is in the three great redwood counties of the State, the acreage being distributed as follows: Humboldt, 420,000 acres; Mendocino, 600,000, and Del Norte, 125,000, a total of 1,145,000 acres. The moving spirit of the whole matter is Hugh Bellas. He is known to every large lumber man in the United States, and his acquaintance in the lumber line in Europe is, if possible, more extensive."

The Tight Stave Manufacturing Association met last week at Memphis in semi-annual convention. Representatives from Tennessee, Alabama, Mississippi, Arkansas, Missouri, Kentucky and Illinois were present. The meeting was presided over by T. H. Harris as president, and E. H. Defebaugh of Louisville, Ky. secretary. At the morning session the classification scheme inaugurated at the last meeting was approved. The reports, made in the afternoon, of stocks on hand and stocks manufactured since January 1 showed that there was a falling off in both, but as the stocks in hand had diminished by about the same percentage as the stocks manufactured this year, the demand was about normal. The reports for different lines of goods showed that the demand for whiskey-barrel stock, especially from Kentucky, was much stronger than last year. The beer-keg stock, however, showed only a nominal demand. The general demand for the year up to date was not quite so good as for the past two years, but they had been extraordinary.

MECHANICAL.**Heintz Apparatus in Sugar-House.**

The extent to which Heintz traps are employed in European sugar factories is attracting the attention of refiners here, and a recent improvement is in connection with their use on a vacuum pan or similar apparatus. The chief difficulty in

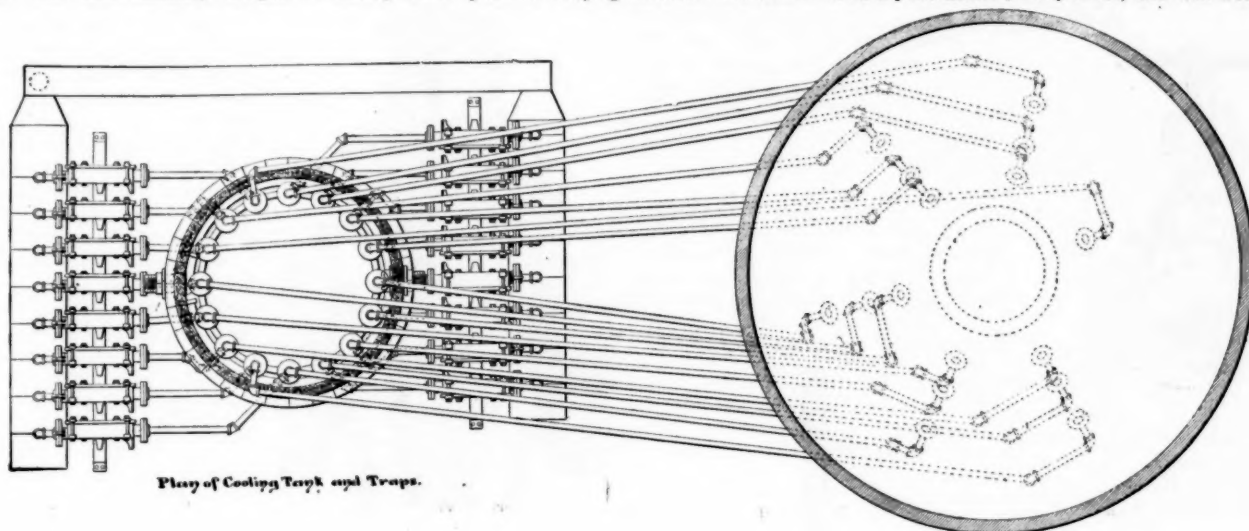
the latter closed by a trap, steam pressure invariably holds the condensation in some of the coils, greatly reducing their efficiency. It is therefore seen that a most improved method is to employ a trap on each tail pipe, and the illustrations herewith show the manner of doing this.

As the steam employed in the vacuum pan is usually under pressure varying

which it will pass freely from the traps.

The efficiency and economy of this method are apparent, and the drawings shown explain in detail how the construction is made. It has been shown that the economy in fuel of this plan sometimes reaches 25 per cent., and in most cases exceeds 10 per cent., and the output of the pan is also largely increased. Sometimes when a juice heater

hours, whereas it required from seven to ten days to make the repairs by the old method." Where idleness of the plant entails hundreds of dollars loss each day, the saving of time and consequent saving of money by the use of Bowsher's "ready-dressed" cogs becomes very manifest. Despite the great difference in the size of the two cogs, they are both perfectly made, and will work as nicely in



Plan of Cooling Tank and Traps.

Plan Showing drip-pipes from bottom of Vacuum Pan to Cooling Tank.

FIG. 1—AUTOMATIC JUICE HEATER.

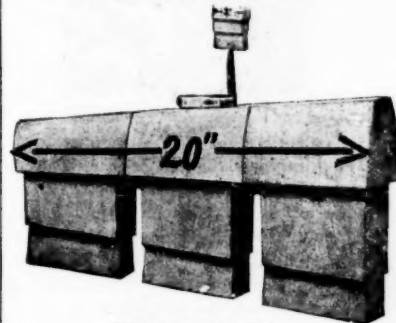
connection with the use of a vacuum pan has been to secure an even temperature without permitting steam to blow through all the coils.

By placing a trap on each coil the William S. Haines Co. has succeeded in keeping all the coils entirely clear of water, and at the same time have been enabled, through the prevention of any flow of steam through the coils, to actually hasten the action of the vacuum pan quite materially, whilst at the same time making quite a considerable saving on the amount of steam required to accomplish a given quantity of work. It has been demonstrated that when steam is

from 50 to 100 pounds, and the condensation when it first sets up has a temperature closely approximating that of the steam itself, a cooling arrangement of some form is essential. That formerly employed was simply a piece of pipe of a length commensurate with the requirements, and this pipe was frequently an objection, as it radiated a

is already in service the feed water for the boiler is passed through the cooling tank with results almost as satisfactory. When no juice heater is employed, however, that described and illustrated is eminently satisfactory. There are no points around a refinery where Heintz traps cannot be employed on the steam lines with satisfaction, and as fuel comes

any wheel that runs ordinarily true and is ordinarily well spaced as cogs which are hand-spaced and dressed. The N. P. Bowsher Co. of South Bend, Ind., makes these cogs. For a number of years one department of the company's factory has been devoted specially to this manufacture. A large stock of selected rock



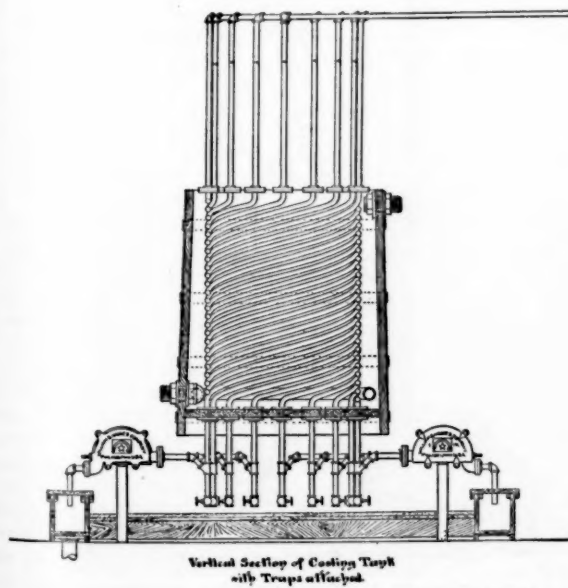
20-INCH MILL COG.

maple, all air-dried under cover, from three to five years old, is carried, and the plant has special facilities for getting out work with unusual promptness and accuracy. The product is all kinds of cogs, including those with blank heads, which are to be spaced and dressed after putting in the wheel.

Fairbanks Valves.

Valves fulfill an important mission in the mechanical world, and their manufacture in a perfected form has been the work of leading machinery and supply establishments in industrial life. Fairbanks Valves have been demanded extensively, and their exceptional merit has made for them a high-class reputation with users. They were first produced to meet the general demand for valves that would eliminate the defects existing in others, and their peculiar and superior construction admits an ease in renewing wearing parts that appeals to the experienced user.

The accompanying illustrations show types of these valves. Fig. 1 is the Fairbanks Globe Valve, which is provided with vulcanized asbestos disc rings composed of the fiber of asbestos, to which is added, by a patent process, waterproof



Vertical Section of Cooling Tank with Traps attached.

FIG. 2—AUTOMATIC JUICE HEATER.

allowed to blow through the coil in the vacuum pan the loss in heat units amounts to from 50 to 90 per cent., with a corresponding loss in temperature in the pan of sometimes as much as 30 degrees. In other words, when steam is allowed to blow from the tail pipe it is not only wasteful, but the pan is not kept as hot. Again, when all the tail pipes from the pans are run into a main drip line, and

great deal of heat at a place where as little as possible was desired. The present method is a decided advance, inasmuch as the cooling coil is immersed in the tub or tank through which the cold juice is passed, and in this way the cooling coil performs two offices, serving to heat the juice and at the same time cool down the condensation to a point below 212 degrees, at

next to wages in manufacturing cost, it is evident that anything that will reduce this cost is an essential addition to a refinery, and assuming that coal cost \$3 per ton, a saving of 10 per cent. would be an attractive addition to the earning power of the plant.

The William S. Haines Co., Eighteenth and Hamilton streets, Philadelphia, designs installations and furnishes complete equipments of Heintz traps, subject to approval in all cases.

Extremes in Mill Cogs.

The accompanying illustration will interest users of mill cogs. It shows how extremes meet in mill cogs. The 20-inch mill cog is used at one of the great water-power centers of the country, while the two-inch cog is used in a prosperous factory in New England. The larger cogs, amounting to a wagonload, were sent by express, as the emergency of the customer's need required it, and as shipment was made promptly, the least possible time elapsed from the hour of placing the order until the cogs were in the wheel. The firm who uses the cogs writes the manufacturer: "These 20-inch cogs transmit 1400 horse-power, and the wheel was filled with your cogs in eight

vulcanizing material, making a very durable packing, which will not crack or flake off. This ring is forced into a brass holder, and the metal is spun or turned over the edges of the ring so that it cannot drop out. The disc complete, which consists of the ring and brass holder, is at all times ready for use, and can be put into the valve by simply removing the bonnet, slipping the old disc from the end of spindle, substituting the new one

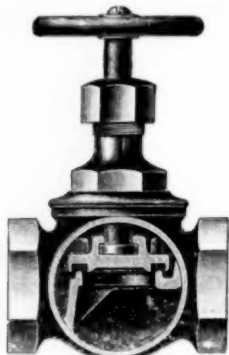


FIG. 1.

and replacing bonnet, the whole operation requiring only a few moments' time and no skill. It is held central on the valve seat by guides cast on the body of the valve.

These valves have a raised round seat, upon which scale, grit or sediment is less likely to lodge than on the broad flat seats commonly used. The stuffing-boxes are all packed with braided round vulcanized packing, which is very durable and cannot be blown or washed out.

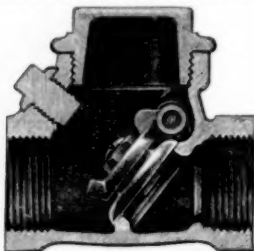


FIG. 2.

The principal advantage that these valves have over other globe valves is the ease with which the discs are renewed and the manner in which they are secured to the spindle, which is without nuts, screws, pins, wires or anything that is liable to become detached while in use.

Fig. 2 is the Fairbanks Check Valve (generally known as the "P & C"), straightway swinging, with patent rotating disc, which works freely, never sticking on the seat. A very desirable feature

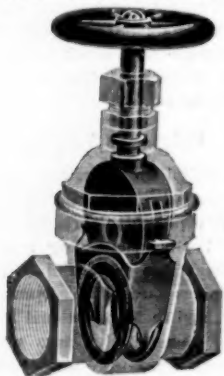


FIG. 3.

is the straightway and full area, equal to pipe connections. These valves are unequalled for use in connection with return steam traps, inspirators, injectors, pumps, etc.

The valve is easily reground by removing the angle plug, inserting a screwdriver into slot in disc-head and revolving it sufficiently to reset it without disconnecting valve from the pipe.

Fig. 3 shows the Fairbanks Renewable

Double-Seat Gate Valve as made in the brass patterns. The seat rings are composed of asbestos fiber, specially treated the same as the disc rings in the globe valves. These seat rings will neither crack, flake nor chip off nor adhere to the gate or wedge. They do not expand or contract from heat or cold, but are sufficiently elastic to compensate for the usual expansion or contraction of the valve body and prevent binding or pinching of the wedge. Being of softer material than the other parts, they prevent the injury ordinarily resulting from pipe chips, grit, scale, etc., if intercepted between them and the wedge. No special tools or skill are necessary to replace these seat rings.

The gate is a double-faced, wedge-shaped casting with side grooves, by means of which it slides on guides in the valve. These hold it central and relieve the spindle of strain from pressure on either side of the wedge. Being double-seated, these valves can be used with the

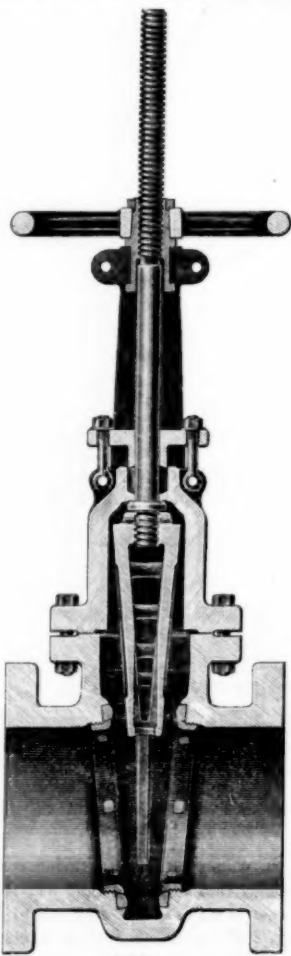


FIG. 4.

pressure applied at either end. They are made with non-rising or rising spindles.

Fig. 4 shows the Fairbanks Iron Body Gate Valve, with rising spindle. Gate valves of this construction have embodied in them the important features of adequate strength; seat rings are renewable with valve body in pipe line; the gland can be packed under pressure, and they have successfully met all the requirements of high-working pressures.

The seat rings are independent rings of bronze or vulcanized asbestos, fitted against finished surfaces in the body, and are firmly held in position without distortion by retaining rings of bronze, which are screwed into the waterway. These seat rings can be renewed by removing the retaining rings with a suitable tool. The double-faced tapered wedge makes a tight joint, with the seat rings on either face, and pressure can be applied at either end of the valve. The spindles are made with shoulder, which permits the packing of the stuffing-box under pressure when the valve is open. Both sta-

tionary and rising spindle gate valves are furnished of this construction. All parts are interchangeable and renewable.

Fig. 5 shows the Fairbanks Asbestos-Packed Cock, with a section of the body removed in order that the plug and packing may be shown. These cocks are well known and extensively used for boiler service, and in this connection they can be used for boiler blow-off, water-column

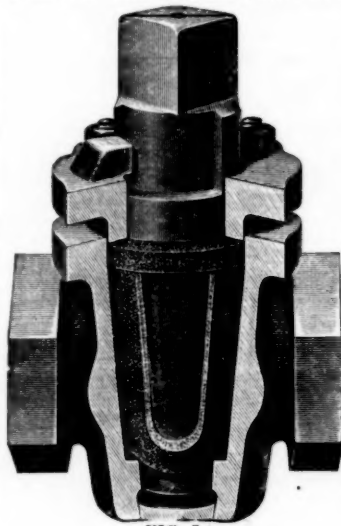
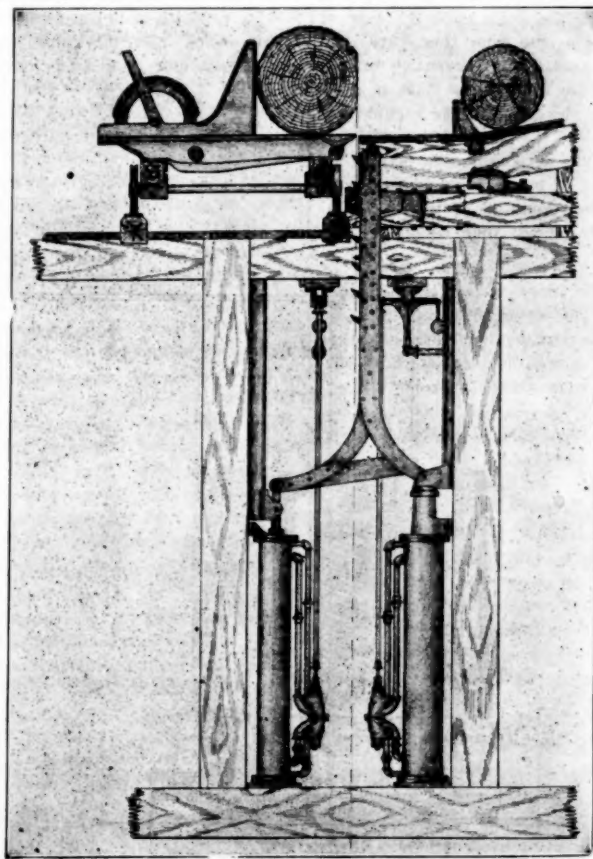


FIG. 5.

blow-off, also between check and boiler, and between water column and boiler. They are also successfully used for hydraulics, ammonia, gas, acid, oil and air.

The dovetailed "U"-shaped grooves in the body are packed with specially-prepared asbestos, and a vulcanized asbestos ring is used on the shoulder of the plug for top packing. The plug is of standard taper, carefully finished, and barbed to



DOUBLE STATIONARY CYLINDER LINK CONNECTION STEAM NIGGER.

render it rustless. It has no metallic bearing, coming into contact only with asbestos, the elasticity of which compensates for the differential expansion and contraction of the plug and body. Experience shows that it is best to use an asbestos-packed cock to its full capacity—wide open rather than partially open.

The Fairbanks Company manufactures the valves and cock mentioned. Its Baltimore office, 19 Light street, supplies the

Southeastern States, and will furnish further information.

The Steam Nigger.

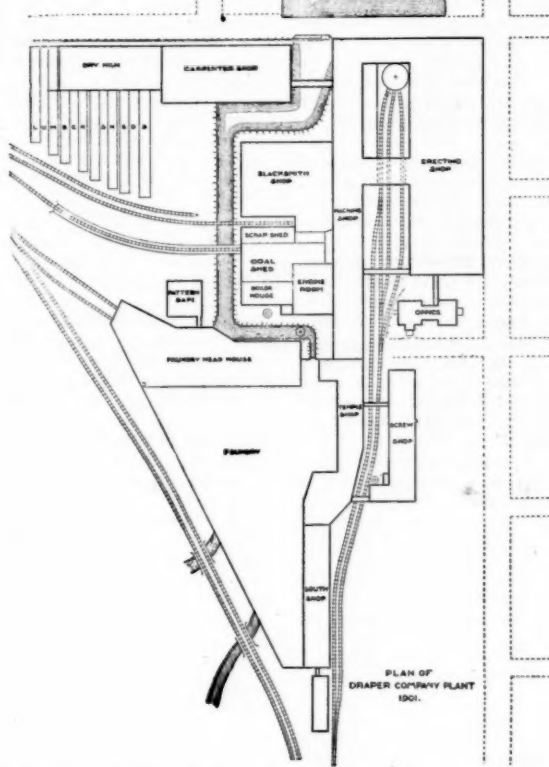
One of the most valuable and welcome inventions introduced in lumber milling was the steam nigger. The first designs were crude, but they were labor-savers, and have been improved by manufacturers until now the steam niggers offered do the work of a dozen men by the aid of one sawyer. The Double Stationary Cylinder Link Connection Steam Nigger, illustrated herewith, is one of the most approved forms of such a device. It is built by Messrs. Wm. E. Hill & Co. of Kalamazoo, Mich., pioneers in this field, and successful ever since. The machine shown is claimed to be the nearest possible approach to the perfect log-turner.

It is powerful enough to load and turn the largest logs, and is so simple in its action that a child might handle it without fear. The sawyer, by pushing controlling lever in the direction he wishes tooth bar to go, gives the steam to the bottom of small cylinder, causing the bar to tilt backward behind log. Then by giving steam to the bottom of large cylinder and top of small one the log is carried forward and upward onto the carriages. A little more steam and the log can be turned to any desired position. As to the construction of this machine, it is most durable. The floor plate is of heavy angle steel, strongly riveted, and is practically indestructible. The tooth-bar bumper, a heavy and substantial casting, receives the blow of the bar as it comes back and cushions it on the heavy steel spring. The tooth bar is the strongest that can be made, and the teeth are so arranged that they recede into the sides

as the bar comes down, and so do not mar the lumber. The slides and cross-heads are of an improved construction, very strong and carefully finished. There are four styles of valves furnished with this nigger, all giving entire satisfaction. Messrs. Hill & Co. also manufacture other styles of niggers to suit varying cases, such as ground-floor mills, mills that want to turn log down on the carriage, etc.

The Draper Company's Plant.

The rapid development of the cotton-manufacturing industry in the United States, especially in the South, during the past decade created a great demand for the machinery necessary for the mills. The design and construction of this machinery has thus come to constitute an



important industry in itself, and the accompanying plan of the Draper Company's plant is presented in the belief that it will interest.

The Draper Loom, although introduced less than five years ago, has achieved a success that is seldom equalled in machinery design and construction.

This success resulted in the enlargement and eventual uniting of the various textile-machinery plants at Hopedale, Mass.

The industries were built up under various corporations, each owning its separate plant. Since 1896 the consolidation of the various interests into the Draper Company has tended to unite the plants as well. While many changes were made prior to 1900 to enlarge capacity, the uniting of all into one plant was not begun until then. During the past year new building operations have connected the entire plant, the design being to not only centralize departments, but also to balance their productive capacity. It has been necessary to entirely demolish nearly half of the former plant, and upon completion of present changes five former groups of buildings will have been entirely sacrificed, and it was necessary to move various buildings from former locations. While the completed plant can easily employ from 4000 to 5000 hands, careful provision has been made for future enlargement without disturbing location of the present departments.

Power, furnished by four separate plants formerly, is now obtained from one central department having new equipment throughout. There are ample railroad facilities, and a system of basement tracks running the entire length of the works, connected with convenient elevators, serves in distribution of the castings and finished parts.

The carpenter shop, dry-kiln and lumber sheds are isolated from the main plant by a canal, and the pattern safe is in separate fireproof building.

The screw shop is only connected with the plant by bridges, but being entirely unlike the rest in character, the separation involves no inconvenience.

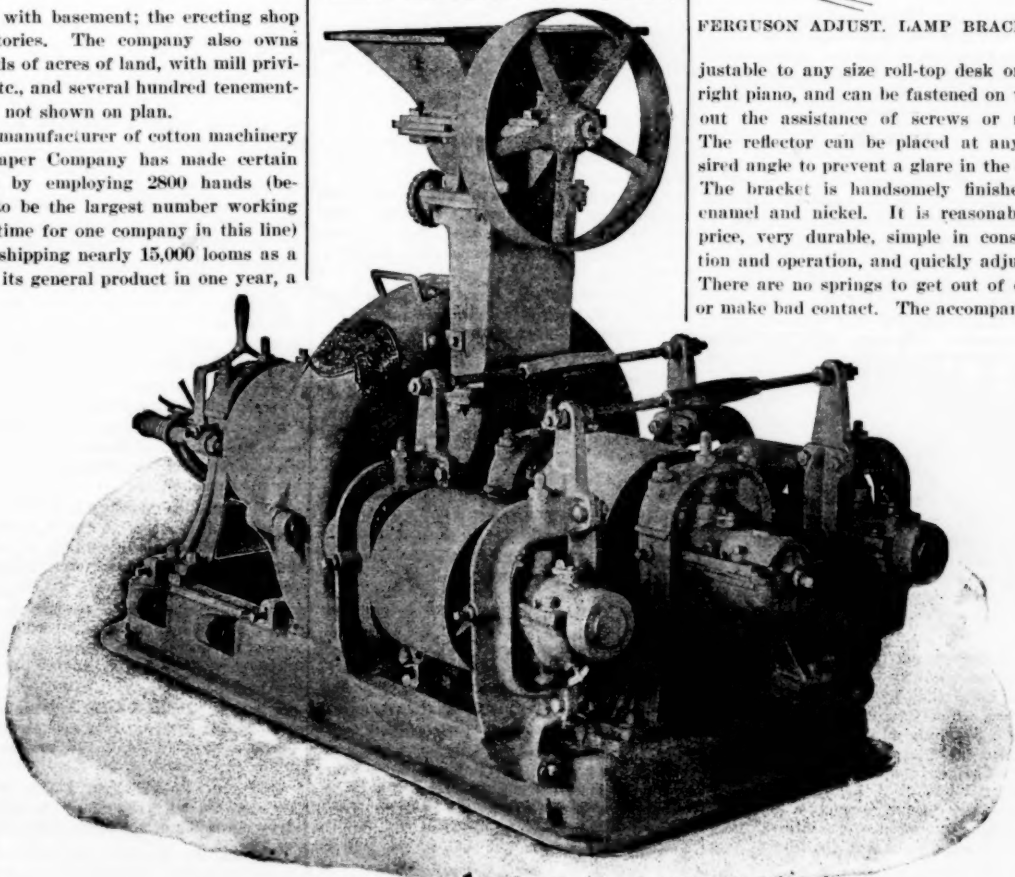
The illustration shows the buildings on the minute scale of 315 feet to the inch. The erecting shop and foundry are easily the largest of their kind in New England. The machine shop is five stories in

The other departments of manufacture have also been enlarged throughout, the last year noting high-water mark for capacity in practically every separate department.

The Draper Company and its predecessors never intended to build a full line of cotton-mill machinery, but simply to manufacture specialties controlled by patents and embodying new ideas. The line of product has, however, greatly broadened, so that now the plant manufactures nearly every machine used in the ordinary cotton-mill spinning-room and weaving-room, including everything for spinning but the frames themselves—spoolers, warpers, twistors, reels, banding machines, drawing-in machines and looms. The company had not built a loom for sale prior to 1895, and yet now claims to sell more than any other competitor, although the price asked is nearly three times that of machines in competition.

Three-Pulley Drive on Attrition Mills.

An accompanying illustration shows the three-pulley drive arrangement used by the Foss Manufacturing Co. of Springfield, Ohio, on its attrition mills. The company says that such drive was first applied by it some ten years ago and found very desirable, especially where distance between centers was so short as to render use of cross-belt almost impossible. With this arrangement both sides of mill can be driven with an open belt, but it only advises its use where from certain conditions it is not practical or desirable to use a cross-belt, as the high speed of belt travel and abrupt turn around the pulleys is somewhat severe on belts. This is a serious objection to the ordinary three-pulley drive as generally



THREE-PULLEY DRIVE ON ATTRITION MILL.

number claimed to have been never equaled, or even fairly approached, by any other American loom builder.

The completed works will have a capacity of from 25,000 to 30,000 looms per year. As there are probably nearly 350,000 common looms to be replaced, not considering probable increase in new mills, it is possible that this rate of production will soon be attained.

used, but the one here shown overcomes this by being adjustable, so that this strain on belt is reduced to a minimum. The shafts carrying the pulleys run in ring oiling boxes held in adjustable hangers which will easily attach to bedplate of mill and can quickly be changed from one end to the other, as lugs for holding the attachment are now cast on all the Scientific Attrition Mills. This attach-

ment is connected at the top with rods and turnbuckles, so that the idler pulleys may be adjusted to the main pulley on the mill to suit the varying conditions of the drive, also to take up slack of belt when necessary, and as the hangers are adjustable, either end of shaft may be adjusted to give proper track to belt, and both sides working freely on the rods which hold them to the base, a liberal lateral adjustment can be made. This particular form can be attached to all sizes of Scientific Attrition Mills made since March 1, 1901. Those previous to that date do not have the lugs on base.

For further particulars on this and its full line of attrition mills write the manufacturer. The mill here shown will be found at the Foos exhibit at the Pan-American Exposition.

New Desk Lamp.

The Ferguson Adjustable Lamp Bracket, which is one of the most novel and up-to-date roll-top desk lamps on the market, is being introduced. It is ad-



FERGUSON ADJUST. LAMP BRACKET.

justable to any size roll-top desk or upright piano, and can be fastened on without the assistance of screws or nails. The reflector can be placed at any desired angle to prevent a glare in the eyes. The bracket is handsomely finished in enamel and nickel. It is reasonable in price, very durable, simple in construction and operation, and quickly adjusted. There are no springs to get out of order or make bad contact. The accompanying

illustration shows a few of the angles at which the bracket can be placed.

For further facts address the manufacturer, Smith & Hemenway Co., 296 Broadway, New York.

During the twelve months ended with May the tonnage of freight in and out of Houston, Texas, on the railroads converging at that city was 5,595,152.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted." In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

ALABAMA.

Anniston—Land Improvement.—Howard W. Sexton, J. C. Spruill, T. L. Wike, T. E. Kilby and others have organized Quintard Avenue Land Co., with capital stock of \$40,000, for improving and developing real estate.

Athens—Knitting Mill.—L. P. and Robert Hendricks, C. E. and J. W. Frost will establish a \$30,000 knitting mill and dye plant with capacity of 200 dozen pairs of hose per day; building will be two stories, with electric lights, steam heat, etc.

Bessemer—Dolomite Mines.—Tennessee Coal, Iron & Railroad Co., Birmingham, will install necessary machinery and tipples for development of dolomite mines near Bessemer.

Birmingham—Ore Mines.—Tennessee Coal, Iron & Railroad Co. will greatly enlarge its mining equipment at Red Mountain ore mines; new machinery to be installed includes air compressors, hoisting engines, drills, pipe lines, air receivers, tipples, etc., which will increase capacity about 50 per cent.

Birmingham—Coal Mines, etc.—Monongahela River Coal & Coke Co., recently reported as having purchased Walker county coal properties (including Corona Coal & Coke Co., Virginia & Alabama Coal Co. and Southern Coal Co.), has incorporated the Corona Coal & Iron Co., with capital stock of \$1,200,000, and J. B. Finley of Pittsburgh, Pa., president. Company may also, in addition to development of coal mines and manufacture of coke, embark in the iron business.

Birmingham—Rolling Mill.—F. L. Clark, W. S. Roberts and others have secured control of Helena Rolling Mills and will begin operations after necessary repairs are made.

Birmingham—Automobile Factory.—Birmingham Electric & Manufacturing Co., recently organized by J. M. Lansden and William M. Little, has purchased site and will erect building for automobile factory.

Decatur—Sewerage.—Guild & Co. of Chattanooga, Tenn., have contract for constructing sewerage system at Decatur to cost \$38,000.

Ensley—Steel-plant Extensions.—Tennessee Coal, Iron & Railway Co. (offices, New York and Birmingham) will begin erection

at once of an additional battery of soaking pits at its steel works. Work of construction will be in charge of H. W. Hargreaves.

Florence—Water-power.—F. M. Perry states that there is no truth in the report that he will build a dam to develop water-power.

Florence—Furnace.—Sloss-Sheffield Steel & Iron Co. (operating office, Birmingham) is making additions and improvements to its Florence furnace at a cost of \$40,000 which will increase output about 20 per cent.

Huntsville—Cotton Mill.—W. I. Wellman of Huntsville, Chas. L. Poore of New York and others will organize a company to build \$100,000 cotton mill.

Mobile—Gas Plant.—Mobile Gaslight & Coke Co. will make extensive improvements to its gas plant.

Mobile—Machine Shops.—T. B. Merrill, president of Mobile, Jackson & Kansas City road, is investigating with a view to establishing railroad machine shops.

Roanoke—Bottling Works.—J. T. Nelson has established bottling works.

Roanoke—Telephone System.—Dixie Forbert is promoter for construction of a telephone system from Roanoke to Lafayette.

Sheffield—Machine Shops.—Southern Railway Co. has purchased and will operate shops of Sheffield Machine Works; Frank S. Gannon, general manager, Washington, D. C.

Tuskegee—Telephone System.—The Bee Telephone Co. is constructing a line between Tuskegee and Union Springs.

ARKANSAS.

Jacksonport—Smelter.—Morning Star Railroad Co. will, it is reported, erect a smelter.

Little Rock—Cotton Mill.—W. R. Jones is investigating with a view of establishing \$100,000 cotton mill. Address care Board of Trade.

Nashville—Mercantile.—Chartered: Gosnell Mercantile Co., with capital stock of \$10,000, by W. H. Norwood, president; J. C. Gosnell, vice-president, and C. H. Nelson, treasurer.

FLORIDA.

De Land—Saw-mills, Lumber Plants, etc.—Frank E. Bond, J. B. Conrad and A. D. McBride have incorporated the Bond & Bond Co., with capital stock of \$100,000, for construction of a railroad, erection and operation of saw and planing mills, box and barrel factory, fiber and wood-pulp factories, etc.

Jacksonville—Sash, Door and Blind Factory.—F. H. Peck of Atlanta will remove his sash, door and blind factory to Jacksonville; two-story building 80x150 feet will be erected.

Jacksonville—Plumbing, etc.—Henry W. Stafford, Frank J. Ward and Chas. W. Carter have incorporated Stafford & Ward Co. for general plumbing and tinning; capital stock \$5,000.

Leesburg—Brickyard.—New York parties are establishing brickyard at Leesburg. Names will be announced later.

Starke—Telephone System.—M. G. Rowe of Madison has received franchise for construction of telephone system at Starke.

GEORGIA.

Albany—Electric-light Plant.—The city has definitely decided upon the construction of the electric-light plant recently reported. Moore & McCrary, 407 English-American Building, Atlanta, have prepared plans; S. R. Brown, mayor.*

Athens—Silk Mill.—It is reported that Louis B. Magid, formerly of the Magid-Hope Silk Manufacturing Co. of Milford, Mass., has about decided to locate a silk mill in Athens; it is rumored that \$250,000 will be invested. Mr. Magid can be addressed at 415 Broadway, New York.

Atlanta—Fertilizer Factory.—Armour & Co. of Chicago will establish fertilizer factory in Atlanta, as reported recently; mixing building will be 200x500 feet; plant will have daily capacity for sixty to seventy-five tons of acid and 70,000 tons yearly of ammoniated fertilizers; 300 horse-power will be used; contracts have been let and work has commenced. Chas. H. McDonnell, care of Armour & Co., is general manager.

Atlanta—Gin Machinery Works.—Garraux Gin Co. (lately reported) has its plant for the manufacture of gin machinery in operation; company will increase capital stock next winter and incorporate.

Atlanta—Coal Chute, etc.—Plans are being perfected by the Southern Railway for erection of a large coal chute and roundhouse at its North avenue yards at Atlanta; estimated cost of improvements \$30,000; F. S. Gannon, general manager, Washington, D. C.

Barnesville—Bleaching Plant.—Oxford Knitting Mills will add a bleaching equipment.

Cartersville—Electric-light Plant.—The city will vote June 22 on an issue of \$10,000 of bonds for an electric-light plant; F. M. Ford, mayor.

Cedartown—Cotton Mill.—The Cedartown Company is endeavoring to secure the location of a cotton-twine and line mill, which has made a proposition to remove to Cedartown.

Chestnut Mountain—Flour Mill, Ginnery, etc.—A. W. Morrow & Co. are building a 65-barrel flour mill, as recently reported, and a 40-bale ginning system at a cost of \$7500.

Columbus—Bridge.—A resolution has been introduced in the city council authorizing an election to determine issuance of \$42,500 of bonds for construction of bridge across Chattahoochee river at Fourteenth street. Address "The Mayor."

Columbus—Electric-power Plant, etc.—Drake & Stratton Co., owning controlling interest in Columbus Railroad Co. (which embraces electric car and dummy lines and electric-power and lighting service), has sold its interest to George J. Baldwin and associates of Savannah, Ga., who will expend \$50,000 in improvements.

Douglas—Colony Company.—Vickers Colony Co. has been organized, with Peter Vickers, president; J. A. Jones, vice-president, and C. G. Cobb, secretary; capital stock \$25,000.

Louisville—Oil Mill, Flour Mill and Ice Factory.—Louisville Manufacturing Co. has organized, as reported during the week, and will install a 200-horse-power plant, putting in an oil mill, flour mill and ice factory; other industries will be added later. For information write W. W. Abbott.

Lumpkin—Water-supply System.—H. R. Teal of Richwood has contract for sinking an artesian well at Lumpkin for water supply.

Macon—Brick and Tile Works.—Bibb Brick Co. has been chartered, with capital stock of \$30,000, for manufacture of brick, tiling, sewer pipe, etc., by J. N. Neel, L. P. Hillier, A. H. Small, J. H. Alexander and others; company will operate the brick works lately reported projected by J. N. Neel.

Moultrie—Water-works.—City will hold election to determine issuance of \$9000 of bonds for extending its water-works system. Address "The Mayor."

Rockmart—Cannery.—Frank West contemplates establishing a cannery.*

Rome—Manganese Mines.—Georgia Manganese & Steel Co. will open up an extensive manganese mine near Booeville; J. M. Couper, manager.

Savannah—Car Works.—J. J. McDonough, president of Georgia Car & Manufacturing Co., has recently purchased all of the stock and bonds of the company and will increase capacity of the shops.

Tifton—Lumber Mills.—Codington Lumber Co., reported last week as incorporated, has awarded contract for three dry-kilns with capacity of 30,000 feet of lumber per day.

Tifton—Compress and Ginnery.—A stock company has been formed for establishment of a \$10,000 ginnery, using the roundlap compress. Names of interested parties will be announced later.

Waycross—Electric-light Plant.—Waycross Ice Co., recently organized, is considering the installation of an electric-light plant also.

Waynesboro—Electric-light Plant.—The city is investigating the erection of an electric-light plant. Address W. M. Fulcher and P. B. Hall, who are in charge.

KENTUCKY.

Ashland—Bridge.—Plans for the proposed Ashland bridge have been adopted in accordance with requirements of the War Department; it will be of steel and iron and will be 1736 feet long, exclusive of the approaches.

Bardwell—Flour Mill, Elevator, Electric Plant and Water-works.—Citizens' Mill & Elevator, Water & Light Co. has been chartered, as recently reported, for establishment of a 100-barrel flour mill, elevator (25,000 bushels), steel tank and electric-light plant of

1200 lights capacity; also construction of water-works system. Main building will be of brick, 36x36 feet, engine and boiler room 22x30 feet.*

Georgetown—Electric-light Plant and Water-works.—D. J. Hauss, 426 Pike Building, Cincinnati, Ohio, has, it is reported, received franchise for construction of light plant and works recently reported.

Grand Rivers—Iron Furnaces.—J. W. Harrison of St. Louis, Mo., and associates have purchased the Columbian Land & Mining Co.'s iron furnaces at Grand Rivers, as recently reported, and will put same in operation as soon as a supply of coke can be secured.

Greenup—Brick Works.—Tygart Fire-Brick Co., with capital stock of \$50,000, has been incorporated by New York and Cincinnati parties, whose names will be announced later.

Junction City—Oil Wells.—Felix Fox has leased 3000 acres of lands in Wayne county for H. W. Breckinridge of New York, who will prospect for oil and gas.

Louisville—Oil and Gas Company.—Interstate Oil & Gas Co. has been incorporated, with capital of \$2500, by Karl F. Bierach, K. E. Bierach, A. E. Myer and others.

Louisville—Woolen Mill.—Falls City Jeans & Woolen Co. will install additional machinery to introduce the manufacture of cassimeres; machinery has been ordered.

Louisville—Tobacco Stemmary.—R. A. Patterson Company of Richmond, Va., will erect stemmary in Louisville.

Madisonville—Tobacco Factory.—Walter T. Hains & Co. will establish tobacco factory.

Owensboro—Wagon Company.—Owensboro Wagon Co. has increased its capital stock from \$250,000 to \$300,000.

Paducah—Iron Furnace.—It is reported that Frank Eagles of Milwaukee, Wis., and W. L. Taylor of Niles, Ohio, have purchased and will operate the pig-iron furnace at Paducah.

Rochester—Water-works.—A system of water-works will be constructed, as recently reported; J. D. Baugh, city clerk.*

Wayne County—Oil Wells.—W. J. Loughridge, Gray Falconer, Rudolph Harting and A. H. Phillips of Lexington will develop 3000 acres of oil lands in Wayne county.

LOUISIANA.

Alexandria—Bridge.—Shreveport & Red River Valley Railroad Co., Maj. Polindexter Dunn, land agent, has let contract for construction of bridge at Alexandria.

Houma—Oil Wells.—Terrebonne Oil Co., Limited, has capital stock of \$500,000. A. F. Davidson is president; Emile Dalgic, vice-president, and Jos. A. Pullen, secretary.

Houma—Oil Wells.—Terrebonne-Le Donais Oil & Mineral Co., recently organized, has capital stock of \$2,500,000, and D. J. Kerr of St. Mary is president, and Clarence Warlow of Houma, secretary and treasurer.

Lafayette—Oil-fuel Plant.—The city will provide the necessary apparatus for the power-house of water-works and electric-light plants for using Beaumont oil as fuel instead of coal; the water-works and electric-light service will be extended to the Industrial School. Address "The Mayor."

Lake Charles—Oil-fuel Plant.—Consumers' Ice & Storage Co. will build an 18,000-gallon tank and burn oil as fuel.

Monroe—Candy Factory.—A. Wagner will establish a candy factory.

Napoleonville—Water-works.—The town has definitely decided upon the construction of the water-works previously reported. Coleman & Malochie, New Orleans, prepared plans and specifications. Address "Town Clerk."*

New Iberia—Oil Mills and Soap Factory.—New Iberia Rice-Milling Association, the New Iberia Round-Bale Gin and Gates Oil Mill and Soap Factory have consolidated as the New Iberia Development Co., Limited; capacity of rice and oil mills will be greatly enlarged.

Shreveport—Sheet-Iron Works.—John W. Haas, John Walsh and Charles L. Campbell have incorporated Shreveport Blow Pipe and Sheet-Iron Works, Limited, with capital stock of \$10,000, for manufacturing and erecting blow-piping for gins, mills and wood-working factories.

St. Joseph—Water-works, Paving, Electric Plant, Bridges, etc.—An election will be held July 17 to decide the issuance of \$200

for paving and improving streets and roads; construction of water-works, sewerage, lights and bridges also contemplated; W. C. Young, Jr., clerk.

MARYLAND.

Baltimore—Medicine Factory.—The Dr. Wilson Company has been chartered for the manufacture of proprietary medicines, with capital stock of \$300,000.

Baltimore—Iron Works.—Baltimore Iron Works, 401 North street, is considering the erection of a large plant at Highlandtown; Charles E. Hill, president.

Baltimore—Pier.—Locust Point Terminal & Forwarding Co. (lately reported) has awarded contract for construction of steel pier to the Structural Iron & Steel Co.; pier will be 300 feet long and forty feet wide, of steel frame, with galvanized corrugated-iron sides and slag roof; four traveling cranes and twelve jib cranes will be installed; company will erect five piers in all.

Baltimore—Lumber Company, Docks, Wharves, etc.—A company will be organized, with capital stock of \$200,000, for exportation and handling of hardwood in logs; company has purchased Foley wharf area of seven acres and water frontage of 1150 feet as site for erection of docks, warehouses and other buildings. Richard Dallam of Belair will probably be president, and Edward L. Germond of Baltimore, vice-president.

Baltimore—Strap, Hinge, etc., Factory.—Maryland Hinge Co., reported lately as incorporated, has secured three-story building at Central avenue and Bank street and will equip for manufacture of strap and T hinges, butts (wrought steel), shelf brackets and other articles of sheet steel. Holland Manufacturing Co., manufacturer of nails, tacks, etc., is interested in the hinge works, and will remove its plant to and operate in connection with same.

Baltimore—Ice Factory.—Maryland Vacuum Ice Co. has increased capital stock from \$200,000 to \$500,000 for the purpose of enlarging its plant.

Baltimore—Steam-power Plant.—R. B. Fentress of Norfolk, Va., and S. B. Medaury, 105 South street, propose to erect a \$300,000 plant for supplying steam for power and heat through mains in the streets.

Baltimore—Hat Factory.—Chartered: Duke, Montague & Gillette Company, with capital stock of \$50,000, for making caps, hats and straw goods, by William B. Duke, George M. Gillette, B. H. Duke and others.

Baltimore—Overall Factory.—Johnson-Hasenbalg Company has been incorporated for the manufacture of overalls by Thomas E. Johnson, Ernest Hasenbalg, H. H. Vonderhorst and others.

Baltimore—Shipbuilding Plant.—J. Quitman Lovell, J. W. Middendorf and Douglas Gordon have purchased the stock and bonds of the Baltimore Dry-Dock Co. and withdrawn the property from sale. The Columbian Iron Works has surrendered its lease of the dry-docks, etc., and the above purchasers will charter the Baltimore Shipbuilding & Dry-Dock Co., with capital stock of \$750,000, to operate the plant, which will be remodeled and improved. J. Quitman Lovell will be president, and J. Triplett Hasall, secretary-treasurer. Address the president.

Brunswick—Knitting Mill.—The Lewis Jones Knitting Co. of Winchester, Va., will establish a branch mill of fifty machines at Brunswick.

Crisfield—Fish-fertilizer Factory.—L. E. P. Dennis & Son have completed fish-fertilizer factory to replace the one burned recently.

Hyattsville—Food Factory.—A building will be erected and equipped as a factory for the manufacture of health foods. N. A. Dunning will be manager.

Washington, D. C.—Axle Works.—W. S. Knox and Col. C. E. Wood will organize stock company, with capital of \$250,000, for manufacture of a roller-wheel device for vehicles patented by W. J. Brewer.

MISSISSIPPI.

Augusta—Lumber Company.—Charles Whitcomb Lumber Co. has incorporated, with capital stock of \$10,000.

Greenville—Levee Construction.—Mississippi levee commissioners have ordered that contracts be let on June 20 for 1,250,000 cubic yards of levee work.

Greenwood—Electric Plant, Water-works and Sewerage.—Vicksburg (Miss.) Electric Light & Railway Co. has made a proposition to construct electric plant, water-works and sewerage to cost \$100,000 at Greenwood provided the city will grant a 20-year franchise.

Hattiesburg—Water-works.—It has been decided by popular vote to issue \$30,000 of bonds for purchase and improvement of the

present water-works system recently reported. Address "The Mayor."

Meridian—Compress, etc.—Chartered: Planters' Compress & Warehouse Co., with capital stock of \$20,000.

Pascagoula—Artesian Wells.—The town will probably sink artesian wells for water supply. Address "The Mayor."

Utica—Oil Works.—Utica Oil Works Co. has been organized by G. D. Kelly, president; S. F. Ewing, vice-president; E. H. Currie, R. B. Latimer and others.

MISSOURI.

Clarksville—Refrigerating Plant.—D. C. Dameron has contracted for a three-ton refrigerating machine.

De Hodiament (not a postoffice)—Contracting, etc., Company.—The Suburban Contracting & Hauling Co. has been incorporated, with capital stock of \$3500, by William Rober, John and Jane Smith of St. Louis.

Hannibal—Cement Plant.—The Atlas Cement Co. has, it is reported, closed options on 1000 acres of land near Hannibal and will erect cement plant with capacity of 100 carloads a day; about \$1,500,000 will be expended.

Kansas City—Brewery.—Imperial Brewing Co. will erect a four-story brick plant to cost \$100,000.

Kansas City—Coal Mines.—Chartered: Norton Coal Co., with capital stock of \$100,000, by W. H. Barrett, A. L. Hayden, C. P. Posternum and others.

Kansas City—Lumber Company.—Vernon Lumber Co., with capital stock of \$50,000, has been incorporated by Samuel H. Strieby, Isaac P. Ryland and John F. Eneberg.

Kansas City—Manufacturing.—Chartered: Perfection Hatcher Manufacturing Co., with capital stock of \$50,000, by Jack Caldwell, Alama R. White and Theodore Benley.

St. Louis—Express Company.—Merchants' Express Co. has been incorporated, with capital stock of \$100,000, by Chas. F. Bates, Sherman B. Pike, Henry D. Black and others.

St. Louis—Power Company.—Natural Power Co. has been chartered, with capital stock of \$30,000, by John Ott, Christian Neumann, Charles Kroencke and others.

St. Louis—Chartered: Perannite Seal Co., with capital stock of \$52,000, by Lewis A. Brown, F. H. Hamilton, C. H. Beggs and others.

NORTH CAROLINA.

Asheville—Water-works.—F. M. Miller, mayor, writes that the statement that the city will issue \$200,000 of bonds for water-works, recently reported, is premature. The subject is talked of, but has assumed no definite shape.

Biscoe—Foundry and Machine Shop.—Biscoe Foundry & Machine Co. will incorporate, with capital stock of \$10,000. Address E. R. Burt.

Durham—Timberland Development.—James Lumber Co. of Charleston, W. Va., will commence logging operations on a large tract of timber near Durham.

Greensboro—Woodworking Plant.—Carolina Spoke & Bending Co. has been incorporated, with capital stock of \$30,000 and privilege of increasing to \$100,000, for establishing woodworking factory, saw and planing mills, etc., by J. Elwood Cox of High Point, J. G. Foushee, J. H. Whitl, G. A. Smith and others of Greensboro.

Greensboro—Electric-power Plant.—Greensboro Electric Co., recently reported, will have capital stock of \$250,000.

Hamlet—Electric-light Plant and Water-works.—G. A. Sanders of Boston and M. C. Freeman will, it is reported, build water-works and electric-light plant at Hamlet.

Harrisburg—Cotton Mill.—M. H. Caldwell of Concord, N. C., can be addressed regarding the proposed cotton factory lately reported.

Hickory—Bridge.—The Board of Trade is endeavoring to have a bridge constructed across the Catawba river.

Lewiston—Saw-mill.—A saw-mill will be established. Address J. G. Gibson, Box 96, Berkeley, Va.

Lilledown—Grain Elevator.—Moore Milling Co. is erecting a 10,000-bushel grain elevator at its roller mill.

Little River Academy—Cotton Ginnery.—John C. Adams will install ginnery.

Mocksville—Cotton Mill.—W. T. Brown of Winston writes that the report that he and H. F. Fries of Salem intend to build cotton factory at Mocksville is entirely a mistake.

Mount Airy—Furniture Factory.—T. B. McCreary and others have incorporated the National Furniture Co., with capital stock of \$25,000.

Reidsville—Flour Mill.—J. H. Walker & Co. will increase capacity of their flour mill and build large grain elevator.

Wilmington—Furniture Company.—Chartered: Sneed Furniture Co., with capital stock of \$7000.

Wilson—Tobacco Factory.—T. S. Williamson & Co. and C. H. Hickey are erecting building and have placed order for machinery for equipment of tobacco factory.

SOUTH CAROLINA.

Anderson—Drug Company.—Chartered: Acme Drug Co., with capital stock of \$40,000, by R. S. Ligon, Geo. W. Evans, J. W. Brock and others.

Beaufort—Hotel Company.—Beaufort Hotel Co. as been chartered, with capital stock of \$20,000, by N. Christensen, Jr., W. R. Bristol and W. P. Waterhouse.

Bennettsville—Cotton Mill.—Bennettsville Cotton Mill will increase capital stock from \$200,000 to \$250,000.

Bennettsville—Tannery.—P. A. Hodges will erect building and equip as a tannery. Shoe and harness-manufacturing plant may be operated also.

Charleston—Portland-cement Works.—Carolina Portland Cement Co., East Bay and Cumberland streets, will increase capital and install plant for manufacturing Portland cement.

Columbia—Gas Works.—The Gas Company, R. D. Apperson of Lynchburg, president; F. H. Shelton of Philadelphia, vice-president, and John M. Daniels of Columbia, general manager, will expend \$30,000 in improvements, which include another tank to hold 75,000 cubic feet, new machinery, additional mains, etc.

Florence—Water-works.—It has been decided by popular vote to issue \$40,000 of bonds for construction of water-works previously reported. Address "The Mayor."

Greenwood—Bobbin Factory.—J. W. Sproles and associates will establish a \$50,000 bobbin factory.

Newberry—Cotton Mill.—Mollohon Manufacturing Co. has been incorporated for operation of 10,000-spindle cotton mill recently reported to be erected by E. B. Wilbur and others; capital stock \$200,000.

Spartanburg—Flour Mill.—Mr. McGowan has made a number of improvements to Palmetto Flour Mill, which includes set of rolls to corn mill, etc.

St. George—Lumber Mills.—Dorchester Lumber Co., reported recently as incorporated, has erected a band-saw mill with capacity of 50,000 to 70,000 feet per day, having dry-kilns of 40,000 feet capacity, with planing mill of 50,000 feet per day of dressed stuff.

Sumter—Cottonseed-oil Mills and Refinery.—Virginia-Carolina Chemical Co., which has been negotiating for the Atlantic Cotton Oil Co. of Sumter, has obtained the 60-ton mill in Sumter, 60-ton mill in Camden, 60-ton mill at Bennettsville, 40-ton mill at Gibson, N. C., and a refinery at Charleston.

Winnabow—Cotton Mill.—Fairfield Cotton Mills will increase capital stock from \$175,000 to \$250,000.

TENNESSEE.

Chattanooga—Fertilizer Factory.—A. D. Adair & McCarty Bros. of Atlanta, Ga., are erecting fertilizer factory at Chattanooga, as recently reported; capacity will be 10,000 tons of finished product annually; acid chambers, with capacity of 100,000 cubic feet, will be erected, and the manipulating and other necessary buildings will cost about \$50,000.

Chattanooga—Furnace.—The Chattanooga Furnace has been improved at a cost of \$50,000 and blown in; capacity 100 tons of pig-iron per day.

Chattanooga—Scales Factory.—McGregor & McCord Manufacturing Co. may establish a scales factory at Chattanooga. Blueprints will be ready shortly, and manufacturers of scale machinery will be supplied with them for bids.

Chattanooga—Plow Works.—Newell Sanders will establish and operate a plow factory.

Cleveland—Electric-light Plant.—The company lately reported as having purchased plant of Cleveland Water & Electric Light Co. and to improve and extend same has been incorporated as Cleveland Electric Light Co., with capital stock of \$10,000, by P. H. Walker, J. H. Smith, F. J. Harle and others.

Crossville—Saw-mill.—Wm. Smith of Coessee, Ind., will establish saw-mill near Crossville.

Greenville—Bridges.—Five steel bridges and two wooden bridges will be constructed across Nolachucky river, and companies de-

siring to bid on same can get information and see plans and specifications by addressing "Bridge Committee."

Huntingdon—Cotton Mill.—It is said that Eastern capitalists will furnish \$75,000 and local investors \$25,000 to ensure building the cotton factory reported last week. J. N. McN. Wright can give information.

Knoxville—Rolling Mills, Steel Mill, etc.—Knoxville Iron Co. (lately reported) has purchased a 25-acre tract of land at Knoxville and will consolidate its Knoxville and Harri-man mills; company will add such machinery as is needed to make the plant modern. Later it is the intention to add a steel plant, plate and sheet mills. Engineers are at work and buildings will be commenced within sixty to ninety days; T. I. Stephenson, general manager.

Knoxville—Water-works Improvements.—Knoxville Water Co., F. C. Kimball, superintendent, will enlarge its system; filter plant will be enlarged to twice its present size, mains will be extended, larger pipe laid and other improvements made.

Knoxville—Flour Mill.—J. Allen Smith will award contract for erection of his proposed flour mill.

Memphis—Elevator.—P. P. Williams Grain Elevator Co. of St. Louis, Mo., has secured buildings at Memphis and will convert same into grain elevator with capacity of 150,000 bushels.

Murfreesboro—Asphalt Company.—Arkansas Asphalt Co. has been chartered, with capital stock of \$100,000, by J. A. Woodson, A. N. Johnson, F. W. Gibb, all of Little Rock, and others.

Nashville—Hardware Company.—Gray & Dudley Hardware Co. will increase capital stock from \$350,000 to \$450,000.

Nashville—Syrup Refinery.—J. M. Winstead, J. P. Brennan, C. F. Arnett and others have incorporated the Tennessee Syrup Refining Co., with capital stock of \$10,000.

Nashville—Harness and Saddle Factory.—Montgomery-Moore Manufacturing Co., lately reported incorporated, has taken over the business of Montgomery, Moore & Co., manufacturers of harness, saddles, wagons, buggies and farm implements; R. J. Montgomery, president.

Peavine—Saw-mill.—Puckett Bros. will install saw-mill near Peavine.

Tullahoma—Water-works.—It has been decided by vote to issue the \$25,000 of bonds for water-works, previously reported. Address "The Mayor."

Waverly—Water-supply Company.—A. E. Justice and J. P. Cowan have incorporated Waverly Water Supply Co., with capital stock of \$10,000.

Winchester—Electric-light and Water Works.—District commissioners have definitely decided upon the establishment of the lighting plant and water works previously reported. Kirkpatrick & Johnson of Jackson, Miss., prepared plans, and they can be addressed.

TEXAS.

Alvarado—Ice Plant.—Planters' Oil Mill Co. has contracted for a five-ton ice plant.

Annona—Mercantile.—Chartered: Annona Mercantile Co., with capital stock of \$25,000, by F. B. Puckett and others.

Austin—Cotton Mill.—Frank Helreman contemplates establishing a cotton mill.

Beaumont—Oil Wells.—Sabine Tram Oil Co. has been chartered, as recently reported, for prospecting for and developing oil on lands of the Sabine Tram Co., from which the oil company has bought the mineral rights on 10,000 acres.

Beaumont—Oil Wells, Pipe Lines, Refineries, etc.—Charles A. Towne of Minnesota, Benton McMillan of Memphis, Tenn., and J. S. Hogg of Houston have organized the Export Oil Co. for development of oil wells, construction of pipe lines and erection of refineries in the Beaumont district. Capital stock is \$2,000,000.

Beaumont—Oil-pipe Line, etc.—Missouri, Kansas & Texas Oil Co. is arranging contracts in Pittsburg, Pa., for ten storage tanks of 75,000 barrels of oil capacity each, 100 steel cars with tanks, twenty-six miles of 10-inch pipe line, two steamers, and machinery for fifteen wells and ten oil barges. This company's lands aggregate 27,000 acres on Spindle Top. Theodore Stegner is president.

Beaumont—Pipe Line.—Lone Star & Crescent Oil Co. of Beaumont and New Orleans has awarded contract to E. H. Sterratt & Co. of Houston for construction of 350 feet of docks at Sabine Pass and for laying pipe lines (recently reported) to connect oil wells with Sabine Pass and Beaumont, in all thirty miles of piping. After this work is completed company will construct pipe line to New Orleans.

Beeville—Oil and Gas Wells.—Western Union Oil Co. has been incorporated, with capital stock of \$50,000, to develop oil and gas wells, by W. H. Ferguson, E. H. Neilson, J. K. New and others.

Blooming Grove—Gin and Mill.—Chartered: Blooming Grove Gin & Mill Co., with capital stock of \$10,000, by W. B. Armstrong, W. S. Mitchell, W. F. Campbell and others.

Brenham—Oil-fuel Plant.—The McFadden Compress will use oil instead of coal as fuel. Cisco—Coal Mine.—J. V. Smith and J. H. Holcomb are developing coal mine on Sandy creek.

Clifton—Elevator.—Chartered: Clifton Trading & Elevator Co., with capital stock of \$10,000, by S. H. Clivich, John Peterson and T. W. Anderson.

Como—Coal Mines.—Como Coal Co. has been organized for development of 3500 acres of coal land; capital stock is \$30,000, and B. A. Ludlow is president; W. S. Hunter, vice-president, and L. H. Tyler, secretary and treasurer.

Corsicana—Gas Works.—The city is considering the use of natural gas as an illuminant for its streets, etc. Address "The Mayor."

Corsicana—Cotton Compress.—Joseph Shwarts, W. L. Wood and A. L. Lotapich have organized Oil City Compress Co., with capital stock of \$50,000, for erection of cotton compress with capacity of 1000 bales every ten hours.

Dallas—Oil Wells.—Globe Land & Oil Co. has been chartered, with capital stock of \$350,000, by M. A. Turner, C. H. Beauchamp, W. H. Patterson and others.

Dallas—Printing, etc.—Chartered: McMath Lithograph & Printing Co., with capital stock of \$30,000, by William S. McMath, Walter K. Parker, Chas. L. Wakefield and others.

Dallas—Compress, etc.—Chartered: Shippers' Compress & Warehouse Co., with capital stock of \$200,000, to build and maintain mills, gins, compresses, etc., by C. J. Sorrells, Richard Clark, P. R. Freeman, W. E. Campbell and others.

Denison—Oil Wells.—G. W. Greathouse and J. W. Wilder of San Antonio have leased property at Denison and will bore for oil.

El Paso—Town Company.—North El Paso Town Co. has been incorporated, with capital stock of \$50,000, by W. W. Turney, W. B. Zutta, Richard T. Burge and others.

Floresville—Oil Wells.—Chartered: Wilson County Oil Co., with capital stock of \$300,000, by W. O. Murray, B. F. Ballard, W. H. Mitchell and others.

Fort Worth—Power-house, etc.—Northern Texas Traction Co., George T. Bishop, Cleveland, Ohio, president, has increased capital stock to \$2,000,000 and will expend \$100,000 in betterments and erection of a power-house of two 1000-horse-power Corliss compound condensing engines.

Fort Worth—Packing-house.—It is reported that Swift & Co. of Chicago contemplate erecting a packing-house near Fort Worth to cost \$1,300,000.

Fort Worth—Grain and Flour Mill.—Chartered: Texas Grain & Flour Co., with capital stock of \$10,000, by M. P. Bewley of Fort Worth, W. M. Williams of Pilot Point and R. E. Huff of Wichita Falls.

Fort Worth—Furniture Company.—Rhodes-Haverty Furniture Co., with capital stock of \$20,000, by A. G. Rhodes of Atlanta, Ga., and T. F. Frazier of Dallas.

Galveston—Oil Wells.—Chartered: Double Bayon Oil Co. by J. B. Welmer, E. Hirschfeld, Fred W. Fickett and others; capital stock is \$200,000.

Galveston—Trading Company.—Transatlantic Trading Co., with capital stock of \$30,000, by William L. Frank, C. H. Moore, Victor Labadie and others.

Grand Falls—Irrigation, etc., Company.—Grand Falls Land & Irrigation Co., with capital stock of \$100,000, has been chartered by George M. Otis, T. A. Thompson and John T. Sweatt.

Greenville—Coal Chutes, etc.—Missouri, Kansas & Texas Railroad Co. contemplates extensive improvements at Greenville, which include construction of coal chute, new system of yards, roundhouse, etc.; A. A. Allen, general manager, St. Louis, Mo.

Houston—Chartered: Stewart Abstract Co., with capital stock of \$5000, by John S. Stewart, James W. Lockett, E. S. Wikes and others.

Itaska—Gin.—Chartered: Griffin-Hooks Gin Co., with capital of \$1500, by E. E. Griffin, J. A. Hooks and A. N. Griffin.

Llano—Gin, etc.—Llano Water, Light & Power Co. will rebuild its gin plant recently burned; company is also preparing to put in additional power machinery (water-power)

to supply a 100-barrel roller flour mill to be erected at Llano.

Llano—Water-works Extension.—Llano Water, Light & Power Co. will enlarge its water-works plant for fire protection.

Lufkin—Oil and Supply Company.—Chartered: Lufkin Oil & Supply Co., with capital stock of \$100,000, by W. J. Townsend, R. H. Woodworth and others.

Luling—Sewers.—City will install system of sewerage in two of its principal streets. Address "The Mayor."

Mart—Hardware Company.—Parmer Hardware Co., with capital stock of \$10,000, has been chartered by C. L. Parmer and others.

Mineral Wells—Mining, etc.—Chartered: Brazos River-Croton Creek Mining & Townsite Co., with capital stock of \$50,000, by J. H. Ethel, J. D. Matthews, C. H. Applegate, M. R. Birdwell and others.

Nacogdoches—Oil Wells.—Chartered: Nacogdoches Oil Development Co., with capital stock of \$30,000, by John Schmidt and Henry D. Garrison of Nacogdoches, Jos. J. Delaney of Galveston and others.

Newton—Telephone System.—J. M. Smith of Beaumont will construct telephone line from Roganville to Newton.

Orange—Rice Mills.—Marx Bros. of Crowley contemplate erecting rice mill at Orange.

Pierce—Rice Company.—Borden Rice Co., with capital stock of \$75,000, has been incorporated by A. P. Borden, Frank E. Borden and Gilbert Child.

Port Arthur—Oil Refinery.—The J. M. Guffey Petroleum Co. is arranging immediate contracts for erection and equipment of \$500,000 oil refinery. Plans for six 1250-barrel stills have been given to contractors for estimates. At first only benzine will be taken off, but later the oil will be refined through a number of processes, and it is said that eventually \$1,000,000 will be invested in the plant. J. C. McDowell is general manager, Beaumont and Port Arthur; Geo. D. Prentice, secretary, at Pittsburg, Pa.

Refugio—Oil Lands.—A. C. Hall as leased for a syndicate 20,000 acres of oil land.

San Antonio—Oil Wells.—Chartered: Medina Oil Co., with capital stock of \$50,000, by H. Small, E. E. Shackelford, H. Rhein and others.

Sherman—Cotton-oil Mill.—Madill Oil & Cotton Co. has been incorporated, with capital stock of \$100,000, by N. B. Birge, Geo. F. Chapman and Thomas Forbes.

Sherman—Oil and Cotton Company.—Grayson Cotton & Oil Co., with capital stock of \$150,000, has been chartered to build and operate cotton-oil mills and gins, by J. A. Stanfield, J. H. Wharton and R. A. Chapman, Jr.

Sherman—Cotton-oil Mill.—Roff Oil & Cotton Co. has been chartered, with capital stock of \$100,000, to manufacture cottonseed oil, etc., by John Grant, J. F. Holt and Turner Wilson.

Stephenville—Lumber Company.—Huck-Grant Lumber Co. has been incorporated, with capital stock of \$3000, by J. H. Grant, Whitelaw Houk and H. W. Houk.

Terrell—Oil-fuel Plant.—Terrell Press Brick Co. will use oil for fuel purposes.

Texarkana—Telephone System.—City has granted S. F. Richardson franchise for construction of a telephone system.

Waxahachie—Oil Company.—Planters' Cotton Oil Co. has been incorporated, with capital stock of \$60,000, by F. M. Weaver, N. Harding of Fort Worth, S. J. Hammond of Shreveport, La., and others.

Waxahachie—Telephone System.—J. B. Earle and J. E. Boynton of Waco have received franchise for construction of telephone system at Waxahachie, using central energy system.

Wolfe City—Milling.—Medlin Milling Co. has increased capital stock from \$20,000 to \$25,000.

Wylie—Mercantile.—Chartered: Creekmore-Hammett Company, with capital stock of \$10,000, by C. C. Creekmore and others.

VIRGINIA.

Camden—Cedar Works.—Richmond Cedar Works will remove a portion of its plant to Camden, where it has recently erected a saw-mill and planing mills with capacity of 40,000 feet of cut and dressed lumber per day.

Fredericksburg—Electric-light and Power Plant.—Mrs. J. B. Ficklen has purchased power of Rappahannock Electric Light & Power Co.

Luray—Bridge.—J. A. Beach, H. M. Falkenstein and Walter Campbell have been appointed committee to investigate construction of an iron bridge over creek.

Newport News—Land Improvement.—Lincoln Park Co. has been incorporated for development of property in Elizabeth City county;

W. B. Hoover, president, and S. B. Beerye, secretary-treasurer; capital stock \$50,000.

Portsmouth—Knitting Mill.—The knitting mill reported last week is being located on the land of the National Trust Co. (of Washington, D. C.). The machinery has not been bought yet. L. B. Whitley, No. 1 Kim Building, can be addressed for information.

Portsmouth—Drug Company.—Davis Drug Co. has been incorporated, with capital stock of not less than \$3000 nor more than \$5000, by J. F. Davis, president; D. S. Fletcher, Washington, D. C., vice-president; L. B. Whitley, secretary and treasurer.

Richmond—Development Company.—John L. Williams & Sons, Joseph Bryan, James H. Dooley, T. C. Williams, Jr., F. C. Todd of Baltimore, J. W. Middendorf of Baltimore and others are organizing the Richmond Industrial Development Co. for promoting and fostering small manufactures; plans of company include erection of manufacturing building four stories 150x150 feet, to cost \$25,000, site for which has been purchased and plans for which are being prepared by Noland & Baskerville; plans also provide for erection of another building twice the size of one described, which will probably be built within the year.

Richmond—Tobacco Factory.—Allen & Ginter branch of American Tobacco Co. will install additional machinery to increase output of Richmond plant.

Sandy Hook—Flour Mill.—F. C. Brumback will remove his flour mill from Hope Mills to Sandy Hook and erect wheat elevator.

Staunton—Reed-organ Factory.—W. W. Putnam & Co. have recently made improvements to their plant, including installation of dry-kiln with capacity of 100,000 feet of lumber per month.

Suffolk—Electric-light Plant.—City has awarded contract to George C. Gubernator of Richmond to furnish twenty-five 1200-candle-power arc and fifty 16-candle-power incandescent lights.

Warrenton—Ice Plant.—Warrenton Electric Co. has contracted for a five-ton ice plant, complete, with two 80-horse-power boilers for operating its electrical machinery.

West Appomattox—Flour Mill.—C. W. Hancock, whose mill was recently damaged by water, has sold the property to T. A. Caldwell, who will rebuild same and install rolls.

WEST VIRGINIA.

Bridgeport—Water-works.—Bridgeport Water Co. has received contract for constructing water-works and filter plant.

Charleston—Portrait Company.—Union Portrait Co., with capital stock of \$10,000, has been incorporated by Frank F. Field, John C. Malone, William R. Jarret and others.

Charlottesville—Paving, etc.—It has been decided to issue \$40,000 of bonds for street paving and sewerage, as previously reported. Address "The Mayor."

New Martinsville—Electric-light Plant.—Mountain State Electric Co. of Wheeling will apply to town of New Martinsville for franchise to erect an electric-light plant.

St. Albans—Saw-mill.—Knight Lumber Co. is erecting large saw-mill.

Welch—Colliery Company.—Chartered: Flournoy Colliery Co., with capital stock of \$100,000, by S. L. Flournoy of Charleston, Edgar P. Rucker of Welch, B. F. Keller of Bramwell and others.

Wheeling—Mercantile.—Chartered: Bear Grocery Co., with capital stock of \$150,000, by Morris Horkheimer and others.

Wheeling—Binding Company.—Chartered: Eureka Binding Co., with authorized capital of \$150,000, by John A. Howard, Thomas F. Thomer, S. M. Noyes and others.

BURNED.

Corinth, Miss.—Corinth Lumber Co.'s plant; loss \$16,000.

Estabuchie, Miss.—Estabuchie Lumber Co.'s saw-mill; loss \$30,000.

McKinney, Ky.—Hackley Bros.' distillery and grist mill; loss \$3000.

BUILDING NOTES.

Aiken, S. C.—Dwellings.—W. H. Sands and C. O. Iselin will each erect dwelling.

Alexandria, La.—Depot.—Shreveport & Red River Valley Railroad Co., Maj. Polindexter Dunn, land agent, will build roundhouse and other buildings at Alexandria.

Annapolis, Md.—Barracks, etc.—Bids will be opened June 20 for furnishing material and erecting marine barracks, officers' quarters, etc., at Naval Academy. Copies of plans, etc., on application to F. L. Denny, Q. M., United States Marine Corps, Washington, D. C.

Anniston, Ala.—Dwelling.—Theo. D. Kline of Savannah, Ga., will erect dwelling at Anniston.

Anniston, Ala.—Dwellings.—L. H. Kaplan will build a number of new dwellings.

Atlanta, Ga.—Mercantile Building.—Hugh T. Inman has had plans made by W. T. Downing for erection of a five-story brick, stone and terra-cotta building.

Baltimore, Md.—Building.—Edward Brady & Son will erect a three-story brick back building for Louis A. Dieter, to be 76x17 feet, heated by steam and cost \$6000. Joseph Evans Sperry prepared plans.

Baltimore, Md.—Building.—E. H. Glidden and Howard Myers have completed plans and specifications for a three-story brick business building to cost \$10,000.

Baltimore, Md.—Hotel.—George Klingstine awarded contract to Henry Smith & Sons for erection of proposed hotel on Charles street, plans for which were prepared by Owens & Sisco.

Buxley, Ga.—Buildings.—New parsonage will be erected. Address G. T. Melton. Contracts will be closed at once for erection of proposed bank block. Address A. B. Cassidy.

Biloxi, Miss.—Club Building.—Biloxi Yacht Club will erect new building.

Charlotte, N. C.—Dwelling.—Hook & Sawyer have prepared plans for residence for Mrs. M. A. Prather.

Charlotte, N. C.—Dwelling.—Hook & Sawyer have prepared plans for residence for C. G. Scott.

Charlotte, N. C.—School.—Hook & Sawyer are preparing plans for brick building 60x70 feet for St. Michael's School (colored Episcopal); Rev. P. P. Alston, rector.

Charlotte, N. C.—Library Building.—Plans and specifications are invited until July 17 for new \$30,000 Carnegie Library building. Address Wm. Anderson, secretary building committee.

Chattanooga, Tenn.—Business Building.—William Brown has awarded contract for erection of a brick business building to cost \$10,000.

Chattanooga, Tenn.—Theater.—Frank Cox of Chicago has contract for erection of Chattanooga's proposed theater, and will complete same by September.

Dallas, Texas—University.—Chartered: University of Dallas, with capital stock of \$5000, by J. E. Gilcrest and others.

Durham, N. C.—Buildings.—Building committee will receive bids until June 13, jointly and singly, for erection of two brick school buildings, eight and six rooms, respectively, and assembly hall in each, according to plans and specifications prepared by H. J. Blauvelt of Winston. Plans and specifications at office of J. A. Matheson, superintendent. Usual rights reserved.

East Chattanooga, Tenn.—Hotel.—Edward Heffernan, owner of Sherman House, will improve and enlarge same.

El Paso, Texas—School Building.—E. Kneezell will prepare plans for proposed school building and open bids June 14 for its erection. Address "The Mayor."

Eureka Springs, Ark.—Depot.—Eureka & Northern Railroad Co. will build depot, contract for which has been let. Address for particulars S. W. Lee.

Gadsden, Ala.—School.—Southern Manufacturing Co. has contract at \$12,000 for erection of city's proposed school building.

Gadsden, Ala.—School.—Southern Manufacturing Co. has contract for erection of proposed school building at Gadsden.

Gainesville, Ga.—Dwellings and Business Buildings.—Dr. J. W. Bailey, Dr. E. E. Dixon and John A. Smith will each erect dwelling to cost \$10,000. F. P. Hudson, Hosch Bros. & Co. and H. H. Dean have awarded contracts for erection of three mercantile buildings.

Galveston, Texas—Opera-house.—B. Adoue and I. H. Kempner have purchased property of the Galveston Grand Opera House Co. and will arrange for rebuilding the structure; it was reported lately that \$40,000 would be expended.

Greensboro, N. C.—Building.—State Normal and Industrial College will erect a \$15,000 school building.

Jackson, Miss.—Courthouse and Jail.—Bids will be received by "County Clerk" until July for erection of jail and courthouse previously reported; cost \$83,000.

Jacksonville, Fla.—Hotel.—Dodge & Collins, proprietors of old Windsor Hotel, have accepted plans by Frank Newell of Chicago for erection of their new five-story hotel.

Jasper, Ala.—School.—F. M. Dobson has contract at \$12,000 for erection of brick school building previously reported.

Jeffersonville, Ky.—Asylum.—A poor asylum to cost \$30,000 will be erected. Address

"Commissioners of Clark County Asylum for Poor."

Laurel, Miss.—Warehouse.—Mt. Olive & Laurel Compress & Warehouse Co. will erect warehouse for storage purposes.*

Louisville, Ky.—Baths.—"Board of Public Works" will prepare plans and specifications for erection of public baths at cost of \$4600.

Louisville, Ky.—Office Building, etc.—D. A. Keller will erect office building to cost \$65,000 after plans by C. D. Meyer. C. D. Meyer has made plans for new building for the Delmont Club to cost \$3500.

Louisville, Ky.—Factory Building.—J. J. Gaffney has made plans for factory building for Louisville Shovel Co.

Lumberton, N. C.—Warehouse.—Reeves, Chambers & Worley will erect a tobacco warehouse.

Macon, Ga.—Synagogue.—P. W. Jones & Son have received contract for erection of \$17,000 synagogue.

Maxton, N. C.—School.—Hook & Sawyer of Charlotte have prepared plans for the proposed school at Maxton.

Monroe, N. C.—Residence.—Hook & Sawyer of Charlotte have prepared plans for residence at Monroe of Dr. J. M. Blair.

Monroe, N. C.—Storehouse.—Lee & Lee will erect modern brick storehouse.

Newnan, Ga.—Residence.—M. F. Cole will erect new residence.

New Orleans, La.—Jail.—Bids will be opened July 1 for erection of city jail in accordance with plans, etc., on file with "City Engineer," who will furnish blank forms to bidders.

New Orleans, La.—Depot.—The Illinois Central and the Southern Pacific railways are said to be interested in the erection of a union passenger station at New Orleans; J. T. Harahan, second vice-president of Illinois Central, Chicago.

Petersburg, Va.—Knitting Mill.—A. S. Reinach & Son, proprietors Petersburg Hosiery Co., have awarded contract for erection of additional building, two stories, 100x40 feet, and cost about \$7000.

Pine Bluff, Ark.—Building.—Rhodes-Haverty Furniture Co. has awarded contract to Lawrence & Bonell for erection of a \$7500 building.

Red Springs, N. C.—Store Building.—Hook & Sawyer of Charlotte have prepared plans for store building at Red Springs for Livermore & McKinnon.

Roanoke, Ala.—Hotel.—Griffin & Satterwhite are erecting a two-story brick annex to hardware and hotel building.

Roland Park, Md.—Residence.—Thos. C. Kennedy has completed plans for \$10,000 cottage for Dr. Francis M. Chisolm of Baltimore.

Roland Park, Md.—School.—Ellcott & Emmant have prepared plans for proposed school building at Roland Park to cost \$7000. Address "County Commissioners."

Russellville, Ala.—School.—Trustees of Russellville School, George C. Almon, president, will erect school building.

Salado, Texas.—College.—W. B. Hendrickson and J. M. Scott of Belton, Texas, have contract for rebuilding Salado College building.

Salisbury, N. C.—Dwelling.—Hook & Sawyer of Charlotte have prepared plans for residence for Dr. W. H. Goler at Salisbury.

Savannah, Ga.—Buildings.—Board of directors of Savannah Fair Association accepted plans of Percy Sugden for erection of proposed buildings, and bids for construction will be advertised at once; estimated cost \$14,000. Address A. B. Moore.

Selma, N. C.—Warehouses.—Company has been formed, with J. H. Parker, president, and J. A. Spears, Jr., secretary and treasurer, for erection of two tobacco warehouses.

Spartanburg, S. C.—School and Dwellings.—W. B. W. Howe, architect, has prepared plans for the school to cost \$12,000, also for dwellings for T. S. Lease, C. L. O'Neal and H. M. Grimbale.

Sullivan's Island, S. C.—Buildings.—John P. Pettyjohn of Lynchburg, Va., will receive contract at \$22,396 for erection of buildings at Sullivan's Island, recently reported. There will be twenty-eight buildings, with cisterns, wiring, etc.

Tampa, Fla.—Residence.—Mrs. D. E. Brunner will build residence.

Thornton, Texas.—School Building.—Town will hold an election June 29 to decide issuance of \$5000 of bonds for erection of school building. Address "The Mayor."

Valdosta, Ga.—Building.—Hill Avenue Investment Co. has been organized, with authorized capital of \$50,000, for erection of building.

Walhalla, S. C.—Jail.—J. H. Brown of Liberty, S. C., and R. A. Jackson of Walhalla, under firm name of Brown & Jackson, have been awarded contract for erection of the proposed jail.

Washington, D. C.—Dwelling.—George A. Fuller Co. of Baltimore, Md., has contract for erection of \$100,000 dwelling at Washington for W. R. Patterson.

Washington, D. C.—Buildings.—Plans are being prepared for a 400-room hotel, the "Potomac," to be erected at Seventeenth and H streets N. W. R. W. Patterson of Chicago will erect large dwelling. B. H. Warner is having plans made for erection of large apartment-house; George C. Hough will be the builder.

Washington, N. C.—Hotel.—Hook & Sawyer of Charlotte have prepared plans for a 40-room hotel at Washington for M. T. Archbell.

Winona, Miss.—Courthouse.—Montgomery county will build a \$25,000 courthouse. Address "Board of Supervisors."

RAILROAD CONSTRUCTION

Railways.

Atlanta, Ga.—The Southern Railway Co., it is stated, has decided to enlarge its yards at Atlanta; also to build a coaling station and make other improvements. W. H. Wells at Washington is engineer.

Beaumont, Texas.—It is reported that parties from New York and Cleveland, Ohio, have become interested with local capitalists in a scheme to build an electric railroad between Beaumont and Port Arthur, an estimated distance of twenty miles.

Biloxi, Miss.—It is reported that the question of building a railroad from Biloxi to Natchez has been revived and that the route will include McComb City. The Texas & Pacific Railroad Co. is mentioned in connection with the report.

Cuthbert, Ga.—It is announced that the Central of Georgia Railway Co. is making surveys between Cuthbert and Lumpkin, a distance of twenty-two miles. At Lumpkin connection would be made with the Seaboard Air Line. John M. Egan at Savannah is president of the Central.

Dallas, Texas.—The latest report concerning the Northern Texas Traction Co., which proposes building an electric line between Dallas and Fort Worth, is to the effect that the road is to be completed by October 1. George T. Bishop of Cleveland, Ohio, is president, and John Sherwin, also at Cleveland, one of the directors.

Davis, W. Va.—It is reported that a company has been formed to build an electric railroad between Davis and Thomas and that it has secured a charter.

Dayton, Ala.—The Fausdale & Dayton Railroad Co. has organized by electing J. J. King, president; W. Groat, vice-president, and W. C. Eppes, secretary. It is reported that the company is considering the completion of this line at an early date. A portion of the roadbed has been graded. The estimated length is ten miles.

De Land, Fla.—The Bond & Bond Company has been incorporated at De Land for the purpose of constructing a railroad in connection with several industries. It is reported that the line will extend from Douglas to Neoga in St. Johns county, an estimated distance of forty miles. Frederick E. Bond and John B. Conrad are among those interested.

Dixon, Ky.—The plan to build a railroad between Dixon & Seabee has resulted in a company being formed, with \$500,000 capital stock, under the title of the Kentucky Midland Railroad Co. It is understood that the Kentucky Western Railroad Co. is interested in the project. Irving H. Wheatcroft at Dixon is president and general manager of the Kentucky Western.

Douglas, Ga.—Preliminary surveys have been completed for the proposed railroad between Douglas and the Ocmulgee river in the interest of the Wadley & Mount Vernon Railroad Co. A. Lawrence is engineer. The estimated distance is fifteen miles.

Enterprise, Ala.—Among those interested in the proposed railroad between Enterprise and Geneva, Ala., are E. M. Johnson and T. B. Edwards. The company, which has been organized with \$200,000 capital stock, is entitled the Enterprise Southern Railway Co.

Fayetteville, W. Va.—The Manufacturers' Record is informed that A. W. Hamilton of Fayetteville and others have become interested in the proposed railroad between Fayette Station and Glen Jean.

Geneva, Ala.—Thomas Worthington & Co., contractors for the extension of the Louisville & Nashville between Geneva and Graceville, Fla., inform the Manufacturers' Record

that they will sublet the grading and trestlework. The distance to be covered is twenty-five miles.

Greenville, Texas.—The Missouri, Kansas & Texas Railroad Co. is reported as having decided to enlarge its freight yards at Greenville. About ten miles of track will be built.

Jefferson, N. C.—The Norfolk & Western Railway Co., it is announced, is completing surveys for its proposed extension through Ashe county to what are known as the Ballon ore beds. It is also reported that the Norfolk & Western is arranging to construct a branch along the New river to a proposed cotton mill. C. S. Churchill at Roanoke, Va., is engineer.

Johnson City, Tenn.—A company may be organized to construct an electric railroad between Johnson City and Jonesboro, an estimated distance of seven miles.

Kansas City, Mo.—P. H. Gibson, president of the Kansas City & St. Joseph Electric Railroad Co., informs the Manufacturers' Record that the length of the line will be about fifty miles between the cities mentioned. Construction is now in progress, the Hall Construction Co. of Kansas City having the general contract and the International Construction Co. of Detroit the sub-contracts. It is expected to complete the line by January 1. It will be laid with 70-pound rails and equipped with 40-horse-power motor cars. Mr. Gibson's address is No. 414 Life Building, Kansas City.

Laurel, Miss.—W. W. Austin, one of the promoters of the railroad between Laurel and Waynesboro, writes that it will be thirty-five miles in length and surveys made immediately. Mr. Austin, who is secretary of the company, states that a portion of the financial arrangements have been made. He may be addressed temporarily at Rockton, Ill.

Little Rock, Ark.—Surveys are in progress for the proposed extension of the Choctaw, Oklahoma & Gulf road from Little Rock to Malvern, to connect with the Malvern & Hot Springs line, which the company has recently purchased. The new mileage is estimated to be forty. F. A. Molitor at Little Rock is chief engineer.

Louisville, Ky.—Peter Arlund of Louisville is reported as interested in the plan to complete another system between Louisville and Nashville, Tenn., by constructing new mileage between Greensburg and Scottsville and utilizing railroads now in operation.

Mansura, La.—Right of way is being obtained for the extension of the Shreveport & Red River Valley Railroad from Mansura to the Mississippi river. It is under construction to Mansura.

Memphis, Tenn.—The city council of Memphis has granted the railroad companies entering that city three months in which to decide upon plans for elevating the railroad tracks along the river front. The Illinois Central is one of the principal roads interested. David Sloan at Chicago is chief engineer.

Mineral Wells, Texas.—The latest report concerning the Gulf & Brazos Valley Railway is to the effect that contracts have been let for grading from Mineral Wells to a point near Jacksboro, an estimated distance of thirty miles. It is also stated that the necessary rails have been purchased. E. B. Carver is president of the company.

Mobile, Ala.—It is announced that the Mobile, Jackson & Kansas City Railroad Co. has ordered 6000 tons of steel rails to complete the extension under construction from Merrill to Hattiesburg, Miss., a distance of fifty miles. F. B. Merrill at Mobile is president and general manager of the company.

Montgomery, Ala.—John W. Watts, president of the Montgomery Northern Railroad Co., informs the Manufacturers' Record that the company will soon be in the market for rails, bridges and other equipment. The line is to be operated by electric-power and will be about 100 miles in length.

Nashville, Tenn.—All of the subcontracts have been let for the extension of the Tennessee Central Railroad between Lebanon and Nashville, and the various contractors have begun operations. W. B. Doddridge at Nashville is general manager of the company.

Nashville, Tenn.—H. T. Sinnatt of Nashville has secured a contract for constructing the necessary bridges on the line of the Tennessee Central Railroad between Nashville and Lebanon. The contract calls for the completion of the bridges within five months.

Newport, Ark.—The Morning Star Railroad Co., which is promoting the line between Newport and Yellville, an estimated distance of 125 miles, has been incorporated under the title referred to, with \$3,000,000 capital stock. Among those interested are George H. Heafford and Theodore Rockefeller. Mr.

Heafford may be addressed at 703 Fisher Building, Chicago.

Newport, Tenn.—Tracklaying has begun upon the Tennessee & North Carolina Railroad, under construction between Newport and Waynesville, N. C. W. C. Fawcett is engineer in charge.

Savannah, Ga.—J. J. McDonough is interested in a railroad about forty miles long now under construction. It is expected to begin tracklaying within the next two weeks. No contracts will be let for grading or tracklaying.

Sedalia, Mo.—George W. Inge, general superintendent Sedalia, Warsaw & North-western Railroad Co., informs the Manufacturers' Record that it is contemplated to change the road from narrow to standard gauge during the present year. No contracts, however, will be let.

Sherman, Texas.—It is reported that the St. Louis & San Francisco Railroad Co. will complete its extension to Fort Worth by October 1, and that it intends constructing a branch from Carrollton to Dallas, Texas, a distance of sixteen miles. It is understood that contracts have been let to complete the Fort Worth & Rio Grande division from Brownwood to San Saba. B. F. Yoakum at St. Louis is president of the company.

Springfield, Mo.—William Woodburn, president of the Springfield, Jefferson City & Chicago Railroad Co., informs the Manufacturers' Record that surveys have been made of two routes between Springfield and Versailles, Mo. The estimated distance is 121 miles. It is expected to cross the Missouri river at either Jefferson City, Boonville or Glasgo. The company expects to receive bids for constructing the section from Versailles south in a few weeks. Mr. Woodburn may be addressed at Des Moines, Iowa.

Tracy City, Tenn.—The question of building an electric railroad between Tracy City and Beersheba Springs, a distance of twenty miles, is being agitated. Among those interested are J. J. Northcut of Chattanooga and A. H. Woodlee of Tracy City.

Union Springs, Ala.—B. H. Hardaway, contractor for the railroad between Union Springs and Fort Davis, writes the Manufacturers' Record that it will be seven miles in length and is to be completed by August 15. Rails and rolling stock will be required.

Velasco, Texas.—The latest report concerning the Velasco Terminal Railroad is to the effect that it will be extended as proposed to Damon's Mound, in Brazoria county, immediately. The road is now in operation a distance of twenty-four miles between Velasco and Chenango Junction. Harris Masterson at Houston, Texas, is one of the principal stockholders.

Versailles, Ky.—It is reported that the Louisville & Atlantic Railway Co. will soon let contracts for extensions from its present eastern terminus, Miller's Creek, to Beattyville. The estimated distance is twenty-seven miles. J. D. Amsden at Versailles is president of the company.

Street Railways.

Beaumont, Texas.—The Safety Electric Manufacturing Co. of New Orleans has secured the contract to equip the street railroad in Beaumont, and it is expected to have it ready for operation within the next six months. M. A. Orlopp is one of the promoters.

Birmingham, Ala.—The Birmingham Railway, Light & Power Co., it is stated, is negotiating with contractors to build an extension of its system to Wylam.

Chattanooga, Tenn.—The Chattanooga Rapid Transit Co. has secured a franchise to build its electric line on Main street and several other thoroughfares. S. W. Divine is president of the company.

Columbus, Ga.—It is reported that extensions and improvements will be made to the street-railway system of Columbus at an expense of about \$50,000. George W. Baldwin of Savannah has been elected president of the company, and J. F. Flournoy, vice-president and general manager.

Greensboro, N. C.—The latest report concerning the proposed street railway is to the effect that the first section will be five miles in length and that surveys are to be made immediately. Z. V. Taylor of Greensboro is one of the local promoters.

Steel-Frame Structures.—Manufacturing plants find steel-frame structures best adapted to their purposes, and some of the most prominent establishments have contracted for them. The Harrow Spring Co. of Kalamazoo, Mich., has just ordered a number of steel-frame structures. The main building will be 90x290 feet, thirty-two and one-half feet high. Wm. B. Scalf & Sons of Pittsburg will manufacture and erect these structures.

Beeville—Oil and Gas Wells.—Western Union Oil Co. has been incorporated, with capital stock of \$50,000, to develop oil and gas wells, by W. H. Ferguson, E. H. Neilson, J. K. New and others.

Blooming Grove—Gin and Mill.—Chartered: Blooming Grove Gin & Mill Co., with capital stock of \$10,000, by W. B. Armstrong, W. S. Mitchell, W. F. Campbell and others.

Brenham—Oil fuel Plant.—The McFadden Compress will use oil instead of coal as fuel.

Cisco—Coal Mine.—J. V. Smith and J. H. Holcomb are developing coal mine on Sandy creek.

Clifton—Elevator.—Chartered: Clifton Trading & Elevator Co., with capital stock of \$10,000, by S. H. Clivich, John Peterson and T. W. Anderson.

Como—Coal Mines.—Como Coal Co. has been organized for development of 3500 acres of coal land; capital stock is \$30,000, and B. A. Ludlow is president; W. S. Hunter, vice-president, and L. H. Tyler, secretary and treasurer.

Corsicana—Gas Works.—The city is considering the use of natural gas as an illuminant for its streets, etc. Address "The Mayor."

Corsicana—Cotton Compress.—Joseph Shwarts, W. L. Wood and A. L. Lotapeich have organized Oil City Compress Co., with capital stock of \$50,000, for erection of cotton compress with capacity of 1000 bales every ten hours.

Dallas—Oil Wells.—Globe Land & Oil Co. has been chartered, with capital stock of \$350,000, by M. A. Turner, C. H. Beauchamp, W. H. Patterson and others.

Dallas—Printing, etc.—Chartered: McMath Lithograph & Printing Co., with capital stock of \$30,000, by William S. McMath, Walter K. Parker, Chas. L. Wakefield and others.

Dallas—Compress, etc.—Chartered: Shippers' Compress & Warehouse Co., with capital stock of \$200,000, to build and maintain mills, gins, compresses, etc., by C. J. Sorrells, Richard Clark, P. R. Freeman, W. E. Campbell and others.

Denison—Oil Wells.—G. W. Greathouse and J. W. Wilder of San Antonio have leased property at Denison and will bore for oil.

El Paso—Town Company.—North El Paso Town Co. has been incorporated, with capital stock of \$50,000, by W. W. Turney, W. B. Zutta, Richard T. Burge and others.

Floresville—Oil Wells.—Chartered: Wilson County Oil Co., with capital stock of \$300,000, by W. O. Murray, B. F. Ballard, W. H. Mitchell and others.

Fort Worth—Power-house, etc.—Northern Texas Traction Co., George T. Bishop, Cleveland, Ohio, president, has increased capital stock to \$2,000,000 and will expend \$100,000 in betterments and erection of a power-house of two 1000-horse-power Corliss compound condensing engines.

Fort Worth—Packing-house.—It is reported that Swift & Co. of Chicago contemplate erecting a packing-house near Fort Worth to cost \$1,300,000.

Fort Worth—Grain and Flour Mill.—Chartered: Texas Grain & Flour Co., with capital stock of \$40,000, by M. P. Bewley of Fort Worth, W. M. Williams of Pilot Point and R. E. Huff of Wichita Falls.

Fort Worth—Furniture Company.—Rhodes-Haverly Furniture Co., with capital stock of \$20,000, by A. G. Rhodes of Atlanta, Ga., and T. F. Frazier of Dallas.

Galveston—Oil Wells.—Chartered: Double Bayou Oil Co. by J. B. Welmer, E. Hirschfeld, Fred W. Pickett and others; capital stock is \$200,000.

Galveston—Trading Company.—Transatlantic Trading Co., with capital stock of \$30,000, by William L. Frank, C. H. Moore, Victor Labadie and others.

Grand Falls—Irrigation, etc.—Company.—Grand Falls Land & Irrigation Co., with capital stock of \$100,000, has been chartered by George M. Otis, T. A. Thompson and John T. Sweatt.

Greenville—Coal Chutes, etc.—Missouri, Kansas & Texas Railroad Co. contemplates extensive improvements at Greenville, which include construction of coal chute, new system of yards, roundhouse, etc.; A. A. Allen, general manager, St. Louis, Mo.

Houston—Chartered.—Stewart Abstract Co., with capital stock of \$5000, by John S. Stewart, James W. Lockett, E. S. Wilkes and others.

Itaska—Gin.—Chartered: Griffin-Hooks Gin Co., with capital of \$1500, by E. E. Griffin, J. A. Hooks and A. N. Griffin.

Llano—Gin, etc.—Llano Water, Light & Power Co. will rebuild its gin plant recently burned; company is also preparing to put in additional power machinery (water-power)

to supply a 100-barrel roller flour mill to be erected at Llano.

Llano—Water-works Extension.—Llano Water, Light & Power Co. will enlarge its water-works plant for fire protection.

Lufkin—Oil and Supply Company.—Chartered: Lufkin Oil & Supply Co., with capital stock of \$100,000, by W. J. Townsend, R. H. Woodworth and others.

Luling—Sewers.—City will install system of sewerage in two of its principal streets. Address "The Mayor."

Mart—Hardware Company.—Farmer Hardware Co., with capital stock of \$10,000, has been chartered by C. L. Farmer and others.

Mineral Wells—Mining, etc.—Chartered: Brazos River-Croton Creek Mining & Townsite Co., with capital stock of \$50,000, by J. H. Ethel, J. D. Matthews, C. H. Applegate, M. R. Birdwell and others.

Nacogdoches—Oil Wells.—Chartered: Nacogdoches Oil Development Co., with capital stock of \$20,000, by John Schmidt and Henry D. Garrison of Nacogdoches, Jos. J. Delaney of Galveston and others.

Newton—Telephone System.—J. M. Smith of Beaumont will construct telephone line from Roganville to Newton.

Orange—Rice Mills.—Marx Bros. of Crowley contemplate erecting rice mill at Orange.

Pierce—Rice Company.—Borden Rice Co., with capital stock of \$75,000, has been incorporated by A. P. Borden, Frank E. Borden and Gilbert Child.

Port Arthur—Oil Refinery.—The J. M. Guffey Petroleum Co. is arranging immediate contracts for erection and equipment of \$500,000 oil refinery. Plans for six 1250-barrel stills have been given to contractors for estimates. At first only benzine will be taken off, but later the oil will be refined through a number of processes, and it is said that eventually \$1,000,000 will be invested in the plant. J. C. McDowell is general manager, Beaumont and Port Arthur; Geo. D. Prentice, secretary, at Pittsburg, Pa.

Refugio—Oil Lands.—A. C. Hall as leased for a syndicate 20,000 acres of oil land.

San Antonio—Oil Wells.—Chartered: Medina Oil Co., with capital stock of \$50,000, by H. Small, E. E. Shackelford, H. Rhein and others.

Sherman—Cotton-oil Mill.—Madill Oil & Cotton Co. has been incorporated, with capital stock of \$100,000, by N. B. Birge, Geo. F. Chapman and Thomas Forbes.

Sherman—Oil and Cotton Company.—Grayson Cotton & Oil Co., with capital stock of \$150,000, has been chartered to build and operate cotton-oil mills and gins, by J. A. Stanfield, J. H. Wharton and R. A. Chapman, Jr.

Sherman—Cotton-oil Mill.—Roff Oil & Cotton Co. has been chartered, with capital stock of \$100,000, to manufacture cottonseed oil, etc., by John Grant, J. F. Holt and Turner Wilson.

Stephenville—Lumber Company.—Hook-Grant Lumber Co. has been incorporated, with capital stock of \$3000, by J. H. Grant, Whitelaw Hook and H. W. Hook.

Terrell—Oil-fuel Plant.—Terrell Press Brick Co. will use oil for fuel purposes.

Texarkana—Telephone System.—City has granted S. F. Richardson franchise for construction of a telephone system.

Waxahachie—Oil Company.—Planters' Cotton Oil Co. has been incorporated, with capital stock of \$60,000, by F. M. Weaver, N. Harding of Fort Worth, S. J. Hammond of Shreveport, La., and others.

Waxahachie—Telephone System.—J. B. Earle and J. E. Boynton of Waco have received franchise for construction of telephone system at Waxahachie, using central energy system.

Wolfe City—Milling.—Medlin Milling Co. has increased capital stock from \$20,000 to \$25,000.

Wylie—Mercantile.—Chartered: Creekmore-Hammett Company, with capital stock of \$10,000, by C. C. Creekmore and others.

VIRGINIA.

Camden—Cedar Works.—Richmond Cedar Works will remove a portion of its plant to Camden, where it has recently erected a saw-mill and planing mills with capacity of 40,000 feet of cut and dressed lumber per day.

Fredericksburg—Electric-light and Power Plant.—Mrs. J. B. Ficklen has purchased plant of Rappahannock Electric Light & Power Co.

Luray—Bridge.—J. A. Beach, H. M. Falkenstein and Walter Campbell have been appointed committee to investigate construction of an iron bridge over creek.

Newport News—Land Improvement.—Lincoln Park Co. has incorporated for development of property in Elizabeth City county;

W. B. Hoover, president, and S. B. Beery, secretary-treasurer; capital stock \$50,000.

Portsmouth—Knitting Mill.—The knitting mill reported last week is being located on the land of the National Trust Co. (of Washington, D. C.). The machinery has not been bought yet. L. B. Whatley, No. 1 Kim Building, can be addressed for information.

Portsmouth—Drug Company.—Davis Drug Co. has been incorporated, with capital stock of not less than \$3000 nor more than \$5000, by J. F. Davis, president; D. S. Fletcher, Washington, D. C., vice-president; L. B. Whatley, secretary and treasurer.

Richmond—Development Company.—John L. Williams & Sons, Joseph Bryan, James H. Dooley, T. C. Williams, Jr., F. C. Todd of Baltimore, J. W. Middendorf of Baltimore and others are organizing the Richmond Industrial Development Co. for promoting and fostering small manufactures; plans of company include erection of manufacturing building four stories 150x150 feet, to cost \$25,000, site for which has been purchased and plans for which are being prepared by Noland & Baskerville; plans also provide for erection of another building twice the size of one described, which will probably be built within the year.

Richmond—Tobacco Factory.—Allen & Ginter branch of American Tobacco Co. will install additional machinery to increase output of Richmond plant.

Sandy Hook—Flour Mill.—F. C. Brumback will remove his flour mill from Hope Mills to Sandy Hook and erect wheat elevator.

Staunton—Reed-organ Factory.—W. W. Putnam & Co. have recently made improvements to their plant, including installation of dry-kiln with capacity of 100,000 feet of lumber per month.

Suffolk—Electric-light Plant.—City has awarded contract to George C. Guvernator of Richmond to furnish twenty-five 1200-candle-power arc and fifty 16-candle-power incandescent lights.

Warrenton—Ice Plant.—Warrenton Electric Co. has contracted for a five-ton ice plant, complete, with two 80-horse-power boilers for operating its electrical machinery.

West Appomattox—Flour Mill.—C. W. Hancock, whose mill was recently damaged by water, has sold the property to T. A. Caldwell, who will rebuild same and install rolls.

WEST VIRGINIA.

Bridgeport—Water-works.—Bridgeport Water Co. has received contract for constructing water-works and filter plant.

Charleston—Portrait Company.—Union Portrait Co., with capital stock of \$10,000, has been incorporated by Frank F. Field, John C. Malone, William H. Jarret and others.

Clarksburg—Paving, etc.—It has been decided to issue \$40,000 of bonds for street paving and sewerage, as previously reported. Address "The Mayor."

New Martinsville—Electric-light Plant.—Mountain State Electric Co. of Wheeling will apply to town of New Martinsville for franchise to erect an electric-light plant.

St. Albans—Saw-mill.—Knight Lumber Co. is erecting large saw-mill.

Welch—Colliery Company.—Chartered: Flournoy Colliery Co., with capital stock of \$100,000, by S. L. Flournoy of Charleston, Edgar P. Rucker of Welch, B. F. Keller of Bramwell and others.

Wheeling—Mercantile.—Chartered: Bear Grocery Co., with capital stock of \$150,000, by Morris Horkheimer and others.

Wheeling—Binding Company.—Chartered: Eureka Binding Co., with authorized capital of \$150,000, by John A. Howard, Thomas F. Thomer, S. M. Noyes and others.

BURNED.

Corinth, Miss.—Corinth Lumber Co.'s plant; loss \$16,000.

Estabuchie, Miss.—Estabuchie Lumber Co.'s saw-mill; loss \$30,000.

McKinney, Ky.—Hackley Bros.' distillery and grist mill; loss \$2000.

BUILDING NOTES.

Aiken, S. C.—Dwellings.—W. H. Sands and C. O. Iselin will each erect dwelling.

Alexandria, La.—Depot.—Shreveport & Red River Valley Railroad Co., Maj. Poindexter Dunn, land agent, will build roundhouse and other buildings at Alexandria.

Annapolis, Md.—Barracks, etc.—Bids will be opened June 20 for furnishing material and erecting marine barracks, officers' quarters, etc., at Naval Academy. Copies of plans, etc., on application to F. L. Denny, Q. M., United States Marine Corps, Washington, D. C.

Anniston, Ala.—Dwelling.—Theo. D. Kline of Savannah, Ga., will erect dwelling at Anniston.

Anniston, Ala.—Dwellings.—L. H. Kaplan will build a number of new dwellings.

Atlanta, Ga.—Mercantile Building.—Hugh T. Inman has had plans made by W. T. Downing for erection of a five-story brick, stone and terra-cotta building.

Baltimore, Md.—Building.—Edward Brady & Son will erect a three-story brick back building for Louis A. Dieter, to be 75x17 feet, heated by steam and cost \$6000. Joseph Evans Sperry prepared plans.

Baltimore, Md.—Building.—E. H. Glidden and Howard Myers have completed plans and specifications for a three-story brick business building to cost \$10,000.

Baltimore, Md.—Hotel.—George Klingstine awarded contract to Henry Smith & Sons for erection of proposed hotel on Charles street, plans for which were prepared by Owens & Sisco.

Baxley, Ga.—Buildings.—New parsonage will be erected. Address G. T. Melton. Contracts will be closed at once for erection of proposed bank block. Address A. B. Cassidy.

Biloxi, Miss.—Club Building.—Biloxi Yacht Club will erect new building.

Charlotte, N. C.—Dwelling.—Hook & Sawyer have prepared plans for residence for Mrs. M. A. Prather.

Charlotte, N. C.—Dwelling.—Hook & Sawyer have prepared plans for residence for C. G. Scott.

Charlotte, N. C.—School.—Hook & Sawyer are preparing plans for brick building 60x70 feet for St. Michael's School (colored Episcopal); Rev. P. P. Alston, rector.

Charlotte, N. C.—Library Building.—Plans and specifications are invited until July 17 for new \$20,000 Carnegie Library building. Address Wm. Anderson, secretary building committee.

Chattanooga, Tenn.—Business Building.—William Brown has awarded contract for erection of a brick business building to cost \$10,000.

Chattanooga, Tenn.—Theater.—Frank Cox of Chicago has contract for erection of Chattanooga's proposed theater, and will complete same by September.

Dallas, Texas—University.—Chartered: University of Dallas, with capital stock of \$5000, by J. E. Gilcrest and others.

Durham, N. C.—Buildings.—Building committee will receive bids until June 13, jointly and singly, for erection of two brick school buildings, eight and six rooms, respectively, and assembly hall in each, according to plans and specifications prepared by H. J. Blauvelt of Winston. Plans and specifications at office of J. A. Matheson, superintendent. Usual rights reserved.

East Chattanooga, Tenn.—Hotel.—Edward Heffernan, owner of Sherman House, will improve and enlarge same.

El Paso, Texas—School Building.—E. Kneezell will prepare plans for proposed school building and open bids June 14 for its erection. Address "The Mayor."

Eureka Springs, Ark.—Depot.—Eureka & Northern Railroad Co. will build depot, contract for which has been let. Address for particulars S. W. Lee.

Gadsden, Ala.—School.—Southern Manufacturing Co. has contract for \$12,000 for erection of city's proposed school building.

Gadsden, Ala.—School.—Southern Manufacturing Co. has contract for erection of proposed school building at Gadsden.

Gainesville, Ga.—Dwellings and Business Buildings.—Dr. J. W. Bailey, Dr. E. E. Dixon and John A. Smith will each erect dwelling to cost \$10,000. F. P. Hudson, Hosch Bros. & Co. and H. H. Dean have awarded contracts for erection of three mercantile buildings.

Galveston, Texas—Opera-house.—B. Adoue and I. H. Kempner have purchased property of the Galveston Grand Opera House Co. and will arrange for rebuilding the structure; it was reported lately that \$40,000 would be expended.

Greensboro, N. C.—Building.—State Normal and Industrial College will erect a \$15,000 school building.

Jackson, Miss.—Courthouse and Jail.—Bids will be received by "County Clerk" until July for erection of jail and courthouse previously reported; cost \$65,000.

Jacksonville, Fla.—Hotel.—Dodge & Collins, proprietors of old Windsor Hotel, have accepted plans by Frank Newell of Chicago for erection of their new five-story hotel.

Jasper, Ala.—School.—F. M. Dobson has contract at \$12,000 for erection of brick school building previously reported.

Jeffersonville, Ky.—Asylum.—A poor asylum to cost \$30,000 will be erected. Address

"Commissioners of Clark County Asylum for Poor."

Laurel, Miss.—Warehouse.—Mt. Olive & Laurel Compress & Warehouse Co. will erect warehouse for storage purposes.*

Louisville, Ky.—Baths.—"Board of Public Works" will prepare plans and specifications for erection of public baths at cost of \$4000.

Louisville, Ky.—Office Building, etc.—D. A. Keller will erect office building to cost \$65,000 after plans by C. D. Meyer. C. D. Meyer has made plans for new building for the Belmont Club to cost \$3500.

Louisville, Ky.—Factory Building.—J. J. Gaffney has made plans for factory building for Louisville Shovel Co.

Lumberton, N. C.—Warehouse.—Reeves, Chambers & Worley will erect a tobacco warehouse.

Macon, Ga.—Synagogue.—P. W. Jones & Son have received contract for erection of \$17,000 synagogue.

Maxton, N. C.—School.—Hook & Sawyer of Charlotte have prepared plans for the proposed school at Maxton.

Monroe, N. C.—Residence.—Hook & Sawyer of Charlotte have prepared plans for residence at Monroe of Dr. J. M. Blair.

Monroe, N. C.—Storeroom.—Lee & Lee will erect modern brick storehouse.

Newman, Ga.—Residence.—M. F. Cole will erect new residence.

New Orleans, La.—Jail.—Bids will be opened July 1 for erection of city jail in accordance with plans, etc., on file with "City Engineer," who will furnish blank forms to bidders.

New Orleans, La.—Depot.—The Illinois Central and the Southern Pacific railways are said to be interested in the erection of a union passenger station at New Orleans; J. T. Harahan, second vice-president of Illinois Central, Chicago.

Petersburg, Va.—Knitting Mill.—A. S. Reinach & Son, proprietors Petersburg Hosiery Co., have awarded contract for erection of additional building, two stories, 100x40 feet, and cost about \$7000.

Pine Bluff, Ark.—Building.—Rhodes-Haverty Furniture Co. has awarded contract to Lawrence & Bonell for erection of a \$7500 building.

Red Springs, N. C.—Store Building.—Hook & Sawyer of Charlotte have prepared plans for store building at Red Springs for Livermore & McKinnon.

Roanoke, Ala.—Hotel.—Griffin & Satterwhite are erecting a two-story brick annex to hardware and hotel building.

Roland Park, Md.—Residence.—Thos. C. Kennedy has completed plans for \$10,000 cottage for Dr. Francis M. Chisolm of Baltimore.

Roland Park, Md.—School.—Ellicott & Emmant have prepared plans for proposed school building at Roland Park to cost \$7000. Address "County Commissioners."

Russellville, Ala.—School.—Trustees of Russellville School, George C. Almon, president, will erect school building.

Salado, Texas.—College.—W. B. Hendrickson and J. M. Scott of Belton, Texas, have contract for rebuilding Salado College building.

Salisbury N. C.—Dwelling.—Hook & Sawyer of Charlotte have prepared plans for residence for Dr. W. H. Goler at Salisbury.

Savannah, Ga.—Buildings.—Board of directors of Savannah Fair Association accepted plans of Percy Sugden for erection of proposed buildings, and bids for construction will be advertised at once; estimated cost \$14,000. Address A. B. Moore.

Selma, N. C.—Warehouses.—Company has been formed, with J. H. Parker, president, and J. A. Spears, Jr., secretary and treasurer, for erection of two tobacco warehouses.

Spartanburg, S. C.—School and Dwellings.—W. B. W. Howe, architect, has prepared plans for the school to cost \$12,000, also for dwellings for T. S. Lease, C. L. O'Neal and H. M. Grimble.

Sullivan's Island, S. C.—Buildings.—John P. Pettyjohn of Lynchburg, Va., will receive contract at \$252,396 for erection of buildings at Sullivan's Island, recently reported. There will be twenty-eight buildings, with cisterns, wiring, etc.

Tampa, Fla.—Residence.—Mrs. D. E. Brunner will build residence.

Thornton, Texas.—School Building.—Town will hold an election June 29 to decide issuance of \$5000 of bonds for erection of school building. Address "The Mayor."

Valdosta, Ga.—Building.—Hill Avenue Investment Co. has been organized, with authorized capital of \$50,000, for erection of building.

Walhalla, S. C.—Jail.—J. H. Brown of Liberty, S. C., and R. A. Jackson of Walhalla, under firm name of Brown & Jackson, have been awarded contract for erection of the proposed jail.

Washington, D. C.—Dwelling.—George A. Fuller Co. of Baltimore, Md., has contract for erection of \$100,000 dwelling at Washington for W. R. Patterson.

Washington, D. C.—Buildings.—Plans are being prepared for a 400-room hotel, the "Potomac," to be erected at Seventeenth and H streets N. W. R. W. Patterson of Chicago will erect large dwelling. B. H. Warner is having plans made for erection of large apartment-house; George C. Hough will be the builder.

Washington, N. C.—Hotel.—Hook & Sawyer of Charlotte have prepared plans for a 40-room hotel at Washington for M. T. Archbell.

Winona, Miss.—Courtthouse.—Montgomery county will build a \$25,000 courthouse. Address "Board of Supervisors."

RAILROAD CONSTRUCTION

Railways.

Atlanta, Ga.—The Southern Railway Co., it is stated, has decided to enlarge its yards at Atlanta; also to build a coaling station and make other improvements. W. H. Wells at Washington is engineer.

Beaumont, Texas.—It is reported that parties from New York and Cleveland, Ohio, have become interested with local capitalists in a scheme to build an electric railroad between Beaumont and Port Arthur, an estimated distance of twenty miles.

Biloxi, Miss.—It is reported that the question of building a railroad from Biloxi to Natchez has been revived and that the route will include McComb City. The Texas & Pacific Railroad Co. is mentioned in connection with the report.

Cuthbert, Ga.—It is announced that the Central of Georgia Railway Co. is making surveys between Cuthbert and Lumpkin, a distance of twenty-two miles. At Lumpkin connection would be made with the Seaboard Air Line. John M. Egan at Savannah is president of the Central.

Dallas, Texas.—The latest report concerning the Northern Texas Traction Co., which proposes building an electric line between Dallas and Fort Worth, is to the effect that the road is to be completed by October 1. George T. Bishop of Cleveland, Ohio, is president, and John Sherwin, also at Cleveland, one of the directors.

Davis, W. Va.—It is reported that a company has been formed to build an electric railroad between Davis and Thomas and that it has secured a charter.

Dayton, Ala.—The Faunsdale & Dayton Railroad Co. has been organized by electing J. J. King, president; W. Grout, vice-president, and W. C. Eppes, secretary. It is reported that the company is considering the completion of this line at an early date. A portion of the roadbed has been graded. The estimated length is ten miles.

De Land, Fla.—The Bond & Bond Company has been incorporated at De Land for the purpose of constructing a railroad in connection with several industries. It is reported that the line will extend from Douglas to Neoga in St. Johns county, an estimated distance of forty miles. Frederick E. Bond and John B. Conrad are among those interested.

Dixon, Ky.—The plan to build a railroad between Dixon & Sebree has resulted in a company being formed, with \$500,000 capital stock, under the title of the Kentucky Midland Railroad Co. It is understood that the Kentucky Western Railroad Co. is interested in the project. Irving H. Wheatcroft at Dixon is president and general manager of the Kentucky Western.

Douglas, Ga.—Preliminary surveys have been completed for the proposed railroad between Douglas and the Ocmulgee river in the interest of the Wadley & Mount Vernon Railroad Co. A. Lawrence is engineer. The estimated distance is fifteen miles.

Enterprise, Ala.—Among those interested in the proposed railroad between Enterprise and Geneva, Ala., are E. M. Johnson and T. B. Edwards. The company, which has been organized with \$200,000 capital stock, is entitled the Enterprise Southern Railway Co.

Fayetteville, W. Va.—The Manufacturers' Record is informed that A. W. Hamilton of Fayetteville and others have become interested in the proposed railroad between Fayette Station and Glen Jean.

Geneva, Ala.—Thomas Worthington & Co., contractors for the extension of the Louisville & Nashville between Geneva and Graceville, Fla., inform the Manufacturers' Record

that they will sublet the grading and trestlework. The distance to be covered is twenty-five miles.

Greenville, Texas.—The Missouri, Kansas & Texas Railroad Co. is reported as having decided to enlarge its freighting yards at Greenville. About ten miles of track will be built.

Jefferson, N. C.—The Norfolk & Western Railway Co., it is announced, is completing surveys for its proposed extension through Ashe county to what are known as the Ballon ore beds. It is also reported that the Norfolk & Western is arranging to construct a branch along the New river to a proposed cotton mill. C. S. Churchill at Roanoke, Va., is engineer.

Johnson City, Tenn.—A company may be organized to construct an electric railroad between Johnson City and Jonesboro, an estimated distance of seven miles.

Kansas City, Mo.—P. H. Gibson, president of the Kansas City & St. Joseph Electric Railroad Co., informs the Manufacturers' Record that the length of the line will be about fifty miles between the cities mentioned. Construction is now in progress, the Hall Construction Co. of Kansas City having the general contract and the International Construction Co. of Detroit the sub-contracts. It is expected to complete the line by January 1. It will be laid with 70-pound rails and equipped with 40-horse-power motor cars. Mr. Gibson's address is No. 414 Life Building, Kansas City.

Laurel, Miss.—W. W. Austin, one of the promoters of the railroad between Laurel and Waynesboro, writes that it will be thirty-five miles in length and surveys made immediately. Mr. Austin, who is secretary of the company, states that a portion of the financial arrangements have been made. He may be addressed temporarily at Rockton, Ill.

Little Rock, Ark.—Surveys are in progress for the proposed extension of the Choctaw, Oklahoma & Gulf road from Little Rock to Malvern, to connect with the Malvern & Hot Springs line, which the company has recently purchased. The new mileage is estimated to be forty. F. A. Molitor at Little Rock is chief engineer.

Louisville, Ky.—Peter Arlund of Louisville is reported as interested in the plan to complete another system between Louisville and Nashville, Tenn., by constructing new mileage between Greensburg and Scottsville and utilizing railroads now in operation.

Mansura, La.—Right of way is being obtained for the extension of the Shreveport & Red River Valley Railroad from Mansura to the Mississippi river. It is under construction to Mansura.

Memphis, Tenn.—The city council of Memphis has granted the railroad companies entering that city three months in which to decide upon plans for elevating the railroad tracks along the river front. The Illinois Central is one of the principal roads interested. David Sloan at Chicago is chief engineer.

Mineral Wells, Texas.—The latest report concerning the Gulf & Brazos Valley Railway is to the effect that contracts have been let for grading from Mineral Wells to a point near Jacksboro, an estimated distance of thirty miles. It is also stated that the necessary rails have been purchased. E. B. Carver is president of the company.

Mobile, Ala.—It is announced that the Mobile, Jackson & Kansas City Railroad Co. has ordered 6000 tons of steel rails to complete the extension under construction from Merrill to Hattiesburg, Miss., a distance of fifty miles. F. B. Merrill at Mobile is president and general manager of the company.

Montgomery, Ala.—John W. Watts, president of the Montgomery Northern Railroad Co., informs the Manufacturers' Record that the company will soon be in the market for rails, bridges and other equipment. The line is to be operated by electric-power and will be about 100 miles in length.

Nashville, Tenn.—All of the subcontracts have been let for the extension of the Tennessee Central Railroad between Lebanon and Nashville, and the various contractors have begun operations. W. B. Doddridge at Nashville is general manager of the company.

Nashville, Tenn.—H. T. Sinnatt of Nashville has secured a contract for constructing the necessary bridges on the line of the Tennessee Central Railroad between Nashville and Lebanon. The contract calls for the completion of the bridges within five months.

Newport, Ark.—The Morning Star Railroad Co., which is promoting the line between Newport and Yellville, an estimated distance of 125 miles, has been incorporated under the title referred to, with \$3,000,000 capital stock. Among those interested are George H. Heafford and Theodore Rockefeller. Mr.

Heafford may be addressed at 703 Fisher Building, Chicago.

Newport, Tenn.—Tracklaying has begun upon the Tennessee & North Carolina Railroad, under construction between Newport and Waynesville, N. C. W. C. Fawcett is engineer in charge.

Savannah, Ga.—J. J. McDonough is interested in a railroad about forty miles long now under construction. It is expected to begin tracklaying within the next two weeks. No contracts will be let for grading or tracklaying.

Sedalia, Mo.—George W. Inge, general superintendent Sedalia, Warsaw & Northwestern Railroad Co., informs the Manufacturers' Record that it is contemplated to change the road from narrow to standard gauge during the present year. No contracts, however, will be let.

Sherman, Texas.—It is reported that the St. Louis & San Francisco Railroad Co. will complete its extension to Fort Worth by October 1, and that it intends constructing a branch from Carrollton to Dallas, Texas, a distance of sixteen miles. It is understood that contracts have been let to complete the Fort Worth & Rio Grande division from Brownwood to San Saba. B. F. Yoakum at St. Louis is president of the company.

Springfield, Mo.—William Woodburn, president of the Springfield, Jefferson City & Chicago Railroad Co., informs the Manufacturers' Record that surveys have been made of two routes between Springfield and Versailles, Mo. The estimated distance is 121 miles. It is expected to cross the Missouri river at either Jefferson City, Boonville or Glasgow. The company expects to receive bids for constructing the section from Versailles south in a few weeks. Mr. Woodburn may be addressed at Des Moines, Iowa.

Tracy City, Tenn.—The question of building an electric railroad between Tracy City and Beersheba Springs, a distance of twenty miles, is being agitated. Among those interested are J. J. Northcutt of Chattanooga and A. H. Woodlee of Tracy City.

Union Springs, Ala.—B. H. Hardaway, contractor for the railroad between Union Springs and Fort Davis, writes the Manufacturers' Record that it will be seven miles in length and is to be completed by August 15. Rails and rolling stock will be required.

Velasco, Texas.—The latest report concerning the Velasco Terminal Railroad is to the effect that it will be extended as proposed to Damon's Mound, in Brazoria county, immediately. The road is now in operation a distance of twenty-four miles between Velasco and Chenango Junction. Harris Masterman at Houston, Texas, is one of the principal stockholders.

Versailles, Ky.—It is reported that the Louisville & Atlantic Railway Co. will soon let contracts for extensions from its present eastern terminus, Miller's Creek, to Beattyville. The estimated distance is twenty-seven miles. J. D. Amsden at Versailles is president of the company.

Street Railways.

Beaumont, Texas.—The Safety Electric Manufacturing Co. of New Orleans has secured the contract to equip the street railroad in Beaumont, and it is expected to have it ready for operation within the next six months. M. A. Orlopp is one of the promoters.

Birmingham, Ala.—The Birmingham Railway, Light & Power Co., it is stated, is negotiating with contractors to build an extension of its system to Wylam.

Chattanooga, Tenn.—The Chattanooga Rapid Transit Co. has secured a franchise to build its electric line on Main street and several other thoroughfares. S. W. Divine is president of the company.

Columbus, Ga.—It is reported that extensions and improvements will be made to the street-railway system of Columbus at an expense of about \$50,000. George W. Baldwin of Savannah has been elected president of the company, and J. F. Flournoy, vice-president and general manager.

Greensboro, N. C.—The latest report concerning the proposed street railway is to the effect that the first section will be five miles in length and that surveys are to be made immediately. Z. V. Taylor of Greensboro is one of the local promoters.

Steel-Frame Structures.—Manufacturing plants and steel-frame structures best adapted to their purposes, and some of the most prominent establishments have contracted for them. The Harrow Spring Co. of Kalamazoo, Mich., has just ordered a number of steel-frame structures. The main building will be 90x290 feet, thirty-two and one-half feet high. Wm. B. Scalfie & Sons of Pittsburgh will manufacture and erect these structures.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Beltting.—See "Gin."

Bicycles.—The Ozawa Shokwai, Klobe, Japan, wants to secure sole agency for bicycles costing not over \$13 f. o. b. New York; also will buy surgical instruments.

Blacksmithing Supplies.—J. E. Enderlin, Aberdeen, Miss., will want shoes, axles, shafts, wagon and buggy material.

Bobbin Factory.—J. W. Sproules, Greenwood, S. C., is in the market for full equipment for \$50,000 bobbin factory.

Boiler.—R. E. Grant, Middleport, Ohio, wants boiler, five or six horse-power, water-tube, marine, registered for inspection.

Boiler and Engine.—John C. Adams, Little River Academy, N. C., wants engine and boiler to furnish power for glunery.

Boiler and Engine.—Aug. L. Chappuis, Rayne, La., wants to buy second-hand Corliss engine of about 300 horse-power and a new water-tube boiler of about 250 horse-power.

Boiler and Engine.—Peacock's Iron Works, Selma, Ala., wants dealers' prices on 10, 12 or 15-horse-power center-crank engine and a 12, 15 or 20-horse-power boiler, with fixtures and fittings.

Boilers.—See "Railway Equipment."

Boilers.—Bids will be opened June 22 for furnishing and installing water-tube boilers and induced-draft apparatus for Interior Department Building, Washington, D. C. For copies of specifications, etc., address "Chief Clerk of Interior Department."

Boilers and Engine.—Yorke Furniture Co., Concord, N. C., wants Corliss engine of 125 horse-power and two boilers, second-hand, eighty horse-power.

Bricklaying.—Insley & Redden, Box 58, Denton, Md., want to contract for laying brick by the thousand.

Brick Machinery.—Aug. L. Chappuis, Rayne, La., wants to correspond with manufacturers of brick machinery.

Broom Machinery.—B. A. Fesperman & Co., Rockwell, N. C., want to correspond with manufacturers of broom machinery and supplies.

Buggy and Wagon Material.—See "Blacksmithing Supplies."

Building Material.—Lockwood & Co., Geneva Hotel, Jacksonville, Fla., want catalogues and price-lists of building materials.

Building Materials.—American Construction Co., 1300 Rhode Island avenue N. W., Washington, D. C., is in the market for materials for construction of fifty frame houses.

Building Supplies.—Jacksonville Brick Co., Jacksonville, Fla., wants to correspond with manufacturers of tiling (interior), ornamental fencing, mantels and grates, hardwood floors, granite and marble slabs.

Callopes.—R. P. Johnson, Wytheville, Va., wants to purchase a steam callopes.

Canning Machinery.—Frank West, Rockmart, Ga., wants to correspond with manufacturers of canning machinery.

Cement Works.—Carolina Portland Cement Co., East Bay and Cumberland streets, Charleston, S. C., will probably want to contract for complete works for Portland cement.

Chemical Works.—Kannawha Drug Co., A. H. Barker, secretary, Charleston, W. Va., wants quotations for machinery and manufacturers' supplies for laboratory, also on drugs and sundries.

Construction of Port.—It is proposed to construct a new port in Argentina. Contractors can obtain particulars by addressing Jose Silvent, chancellor of Argentina legation, 1635 Connecticut avenue, Washington, D. C.

Crushing Machinery.—S. B. Hubbard Co., Jacksonville, Fla., wants to buy machine for crushing fire debris (brickbats, mortar, sand, lime and cement) to the consistency of sharp building sand.

Crushing Plant.—See "Railway Equipment."

Dredging-boat Suction Frame.—Bids will be opened June 19 for furnishing suction frame for United States hydraulic dredge Delta, delivered at Memphis, Tenn. Specifications, blank proposals, etc., on application to Mason M. Patrick, captain engineers, Fullerton Building, St. Louis, Mo.

Electrical Machinery.—See "Railway Equipment."

Electric-light Plant.—See "Water-works."

Electric-light Plant.—M. E. Alles, assistant secretary, New Orleans, La., will open bids June 18 for installing an electric-light plant in the Custom-house.

Electric-light Plant.—"Mayor and City Council," Albany, Ga., will open bids June 22 for furnishing equipment and erecting electric-light plant, after plans by Moore & McCrary, 407 English-American Building, Atlanta. Specifications can be seen at mayor's office and that of Moore & McCrary after June 15. Electrical machinery will include two 100-kilowatt three-phase alternators, 50-kilowatt three-phase alternator, two 150-horse-power engines, 75-horse-power engine, two 72-inch by 18-foot boilers, wire and other pole-line material. Corliss and high-speed engines will be considered.

Elevator.—Bids will be opened July 1 for furnishing and installing passenger elevator in City Hall, New Orleans, La., according to plans, etc. "City Engineer" will furnish blank proposals for bidders.

Elevator.—P. C. Dukes, Branchville, S. C., wants prices on elevator for two-story house.

Elevators and Shafting.—Aug. L. Chappuis, Rayne, La., wants a lot of elevators and shafting for delinting plant.

Engine.—See "Woodworking Machinery."

Fire-escapes.—Joseph D. Sayers, governor, Austin, Texas, will open bids July 10 for construction of one or more fire-escapes at State eleemosynary institutions, seven in all. Bids must be accompanied with plan of escape offered. Bond required and usual rights reserved.

Flooring, etc.—J. W. McKiever, Sumter, S. C., wants prices on oak flooring and cedar boards.

Foundry Tools, etc.—See "Scales Factory."

Gin.—R. Rivembank, South Washington, N. C., wants cotton gin and press, power-driven; belting, etc.

Grits Mill.—Denmark Milling Co., Denmark, S. C., wants to buy a grits mill.

Harness Machinery.—Montgomery-Moore Manufacturing Co., R. J. Montgomery, president, Nashville, Tenn., will want a saddle press.

Hoisting Equipment.—W. L. Law, superintendent, Talladega, Ala., wants second-hand hoisting engine, with boiler, size about 8x12 drum.

House-moving Apparatus.—J. W. McKiever, Sumter, S. C., wants prices and information on house-moving appliances.

Iron Works.—P. C. Dukes, Branchville, S. C., wants prices on iron stairway.

Iron-works Machinery.—See "Scales Factory."

Levee Work.—O. N. Killough, president St. Francis levee board, West Memphis, Ark., will open proposals July 6 for construction of about twelve miles of levee in Crittenden county, approximating 1,200,000 cubic yards. Proposals will be accepted for the work in sections. Information, blank forms, etc., can be obtained from chief engineer, Harry N. Pharr, 49 Southern Express Building, Memphis, Tenn.

Lighthouse Tender.—Bids will be opened July 3 for furnishing material for construction and delivery of twin-screw steel steam lighthouse tender, delivered in Baltimore harbor. Copies of specifications, etc., on application to N. H. Farquhar, U. S. N., office of Lighthouse Board, Washington, D. C.

Machine-shop Equipment.—Blascoe Foundry & Machine Co. will want 36-inch engine lathe, 16x8 machine shop lathe, 20-inch drill press, 17x17x4 planer, hack-saw planer, milling machine, keyseater, 40-inch drill press, pipe and bolt machine. Address E. R. Burt, Blascoe, N. C.

Machine Tools.—D. L. Casey Machine Co., Springfield, Ohio, wants bending rolls, punch and splitting shears, second-hand.

Masonry Arch.—Sealed proposals addressed to "City Council," Augusta, Ga., will be received until June 20 for furnishing labor and material and constructing a brick or stone masonry arch across third level of canal at Thirteenth street. Certified check for \$200 must accompany each bid and \$2000 bond is required. Usual rights reserved. Specifications and plans can be seen at office of Nesbet Wingfield, commissioner public works.

Mechanical Draft.—See "Boilers."

Oil Refinery.—See "Refinery."

Printing Equipment.—Chattanooga-Alton Prescription Co., Alton Park, Tenn., will want large web press, ten job presses and a press for printing postal cards, envelopes, etc., self-feeder. Address Dr. Leonard Case.

Railway Equipment.—R. E. Grant, Middleport, Ohio, wants locomotive, 42-inch gauge, weight fifteen to twenty tons, with saddle tank.

Railway Equipment.—Moore Lime Co., Richmond, Va., wants price (dealers') on crushing plant for railroad ballast, except boiler.

Railway Equipment.—Montgomery Northern Railway, John W. Watts, president, Montgomery, Ala., will be in the market for electric-railway equipment, including rails, river bridge, electrical supplies, etc.

Railway Equipment.—James Lumber Co., Durham, N. C., wants to buy logging locomotive of eight or ten tons weight for wooden rail; also eight or ten logging cars, same gauge.

Railway Equipment.—J. G. Gibson, Box 96, Berkley, Va., wants to purchase about 200 tons of 16-pound steel relaying rails, logging locomotive and cars, and two 75-horse-power boilers for saw-mill.

Refinery.—A. Lichtentag, 1118 Robins street, New Orleans, La., wants estimates on cost of equipment for refining petroleum into illuminating oil and by-products, 500 barrels capacity daily; also approximate cost of buildings and statement of number of acres required for plant.

Roofing.—Mt. Olive & Laurel Compress & Warehouse Co., Laurel, Miss., will probably want prices on roofing and iron siding.

Scales Factory.—McGregor & McCord Manufacturing Co., Chattanooga, Tenn., will soon want estimates on complete equipment for scales factory; blueprints will be supplied soon.

Steel Work.—Bids will be opened June 22 for furnishing and erecting steel work over forge shop at Navy-Yard, Washington, D. C. For plans, blank forms, etc., address "Commandant of Navy-Yard."

Surgical Instruments.—See "Bicycles."

Telephone Equipment.—Ellis County Telephone Co., J. M. Maloney, president, Maloney, Texas, will be in the market for wire, poles, etc.

Water-works.—Citizens' Mill & Elevator, Water & Light Co., Bardwell, Ky., will want machinery for construction of water-works.

Water-works.—Bids are asked until June 19 for furnishing materials and constructing water-works system at Napoleonville, La., previously reported; Louis Corde, mayor.

Water-works.—Town of Napoleonville, La., will open bids June 19 for construction of water-works, equipment to include 600 feet four to eight-inch pipe, sixteen hydrants, two 500,000-gallon steam pumps, two 50-horse-power boilers, two feed pumps and one heater, 100-foot water tower, artesian well, 25x49-foot building, triplex power pump and gasoline engine. Specifications on file with "Town Clerk," Napoleonville, and with Coleman & Maloche, engineers, New Orleans.

Water-works.—Commissioners of Taxing District, Winchester, Tenn., will open bids June 26 for construction of lighting and water plants; systems to comprise crib dam, race, wood flume, penstocks, three 30-inch turbines, 50 to 120-kilowatt multiphase alternator, power pump with induction motor, twenty-one arc lamps, transformers, six miles of pole line, four and one-half miles of four to eight-inch cast-iron mains, forty-eight hydrants, thirty valves and steel tank and tower. For specifications and blank forms address Kirkpatrick & Johnson, engineers, Jackson, Miss.

Water-works Equipment.—Llano Water, Light & Power Co., Llano, Texas, wants prices on power pump and pipe.

Water-works Equipment.—J. D. Baugh, city clerk, Rochester, Ky., wants 600 feet of six-inch iron pipe, 2300 feet of four-inch iron pipe, 800 feet of two-inch iron pipe, 200 feet of two-inch three-ply hose, pump, capacity of 10,000 to 12,000 gallons per hour, elevation about 150 feet, six fire plugs, brick and cement for reservoir fifty feet in diameter and seven feet deep; wants price per foot on hose and pipe.

Well-drilling.—E. Hertzberg, 329 Commerce street, San Antonio, Texas, wants to correspond with parties experienced in drilling oil wells having machinery for that purpose.

Well-drilling Machinery.—J. W. Eckford, Aberdeen, Miss., wants to correspond with manufacturers of machinery for boring oil wells.

Woodworking Machinery.—Blacksher-Miller Lumber Co., Brewton, Ala., is in the market for machinery for making rosin-barrel staves.

Woodworking Machinery.—Denmark Milling Co., Denmark, S. C., wants to buy a second-hand planing machine.

Woodworking Machinery.—Leonard Vyne, North Wilkesboro, N. C., wants second-hand molder, four to seven inches, four-sided.

Woodworking Machinery.—Gatling & Smith, Hillsboro, N. C., want to buy a second-hand medium-size gang edger.

Woodworking Machinery.—J. S. Boggs, Troy, N. C., is in the market for a 20 to 25-horse-power engine and double surfacer, four-sided, second-hand.

Woodworking Machinery.—James O. Clore, Madison, C. H., Va., wants to buy a second-hand pony planer, single surfacer, single belt, and to cut twenty-four inches wide.

Woodworking Machinery.—Thornhill Wagon Co., Lynchburg, Va., wants to buy a second-hand single-drum sander, about twenty-four inches wide, to be used in polishing wagon-body sides.

Woodworking Machinery.—F. S. Hoag, New Berne, N. C., wants to buy a second-hand double surfacer and matcher up to eight to twelve inches wide; wants full description and best price.

TRADE NOTES.

Oil Filters for Porto Rico.—The San Juan Light & Transit Co. of Porto Rico has equipped its plant recently with Cross Oil Filters. These popular economizers are made by the Burt Manufacturing Co., Akron, Ohio.

Hardware Business.—An energetic business man desirous of purchasing an established business should correspond with Box 57, Center Hall, Pa. The business refers to dwelling, store and stock of hardware in an active town.

For Direct Connection.—The Ball Engine, for direct connection, is called for continually by electric-lighting companies. The Memphis (Tenn.) Light & Power Co. has just ordered a 125-horse-power compound direct-connected engine from the Ball Engine Co. of Erie, Pa.

Sale of Boilers and Engine.—A change of plans by the David S. Collins Company, Yankee Dam, W. Va., enables the company to offer for sale at a low price one 125-horse-power Eagle balance engine and two 70-horse-power Pennsylvania boilers. Write for particulars.

Largest Water-Softening Plant.—Reference was made last week to the 4,000,000-gallon filter and water-softening plant of the Citizens' Water Co. of Washington, Pa. The system was installed by the Pittsburg (Pa.) Filter Manufacturing Co., owner of the Ideal System of Water Purification.

Wants Electric-Light Plant or Street Railway.—An experienced man is desirous of leasing an electric-light plant or a street railway, and invites correspondence from companies or individuals having such plant or plants to dispose of. Address, with full particulars, A. B. Coryell, Meridian, Miss.

Superintendent Wanted for Factory.—A competent superintendent for a factory producing silver-plated novelties is wanted at Norfolk, Va. A party with capital is preferred. The plant can be bought outright if the experienced man is desirous of buying. Address for particulars the Norfolk Cutlery Co.

Ludlow-Saylor Increases Capital.—Application has been made for an increase of capital from \$100,000 to \$300,000 by the Ludlow-Saylor Wire Co., the renowned wire worker of St. Louis, Mo. The company has assets of \$125,004.80 and liabilities of \$85,671.99. The extensive new plant of the Ludlow-Saylor establishment is now turning out large quantities of wire work for mines and other industrial operations, and for various other purposes.

New Portland-Cement Works.—Buyers of cement and kindred materials and supplies throughout the South will be interested to know that the Carolina Portland Cement Co. of Charleston, S. C., intends to establish a plant for manufacturing Portland cement. This company has heretofore conducted an extensive business as dealers, and now finds it advisable to produce a brand of cement in its own works. The capital stock will soon be increased and contracts let for the new works.

Drop Forgings at Pan-American.—One of the most complete exhibits in the machine and tool class at the Pan-American Exposition is that of Messrs. J. H. Williams & Co. of Brooklyn, N. Y. Their space, about 12x32 feet in extent, is located in Section 35, Machinery Building. The product shown is

cludes a full line of drop-forge wrenches, lathe dogs, eye-bolts, machine handles, crank handles, shafting keys and collars and a variety of special forgings made for guns, bicycles and different kinds of machinery. The well-known Vulcan Pipe Wrench is also shown.

Belting and Loss of Profit.—There is much connection between loss of profit and belting. Inferior belting may lessen profit by stretching, slipping and breaking. Yet such conditions are likely to be overlooked and the loss not realized directly by the power-user. Superior belting reduces loss from above causes to a minimum. Such a belting is said to be Coheco Belting, made by Messrs. I. B. Williams & Sons, Dover, N. H., who have agencies in the principal cities. The firm believes one trial of Coheco will result in duplicate orders from any discerning power-user.

Record of a Wire Rope.—In St. Louis last week the record of a wire rope was shown in a manner as to interest users of that class of product. The rope in question was in continual service for five and one-half years in an elevator equipment, whereas it is said usually two years is the limit to life of the common round wire rope. But this rope was the patent flattened strand wire rope made by the A. Leschen & Sons Rope Co. of St. Louis. Upon cutting the rope all to pieces it was found in perfect condition inside; even at the point where, through constant wear, the strands had parted, the inside strands were perfect.

Asbestos Goods.—The continued advance of the South in the industrial world and its general progress in importance has brought into existence in the section many manufacturing facilities to supply the demand for all kinds of product. Asbestos goods are among the important supplies demanded. Asbestos-magnesia steam-pipe and boiler coverings, asbestos-magnesia molded block coverings, asbestos cements, etc., find their use increasing rapidly. The Southern Asbestos Manufacturing Co., 1013 East Main street, Richmond, Va., makes a complete line of the character of goods noted. Information supplied promptly to those applying for particulars.

Furnishing Shop Equipments, etc.—Many shops call for the goods manufactured and sold by Chas. H. Besly & Co., 10 North Canal street, Chicago. Complete equipments for shops in Illinois, Indiana, Ohio, Wisconsin and Minnesota have been filled lately. The demand for Gardner Grinders continues in all sections of the world and shipments are being made daily. The Rock Island Arsenal has ordered from Besly & Co. several hundred vises, cutters, reamers and other small tools. The Besly factory at Beloit, Wis., is working overtime in order to keep pace with orders, the tap and die department being especially busy. Buyers are advised to obtain estimates from this popular house before placing contracts.

All Kinds of Iron and Wire Work.—The industrial and general activity of the times is causing a large demand for all kinds of iron and wire work. Plain and ornamental iron and wire work is finding an extensive market, and manufacturers in that line are bending their efforts to produce perfect goods. The Eureka Supply Co., 34 West Ninth street, Chattanooga, Tenn., is prominent among the wire and iron workers, its output being called for by buyers all over the country. Meritorious merchandise and general courteous attention are received by those dealing with the Eureka house. Quotations on architectural iron work, wire work for office railings, window guards, floral designs, fencing, etc., furnished promptly to applicants.

Mathematical Work by Mechanical Means. Banks, banking companies and other financial institutions, as well as many industrial establishments, avail themselves nowadays of the inventions for arriving at the solution of mathematical problems by the assistance of mechanical devices. A leader in this field of devices is the Burroughs Adding Machine, manufactured by the American Arithmetic Co., St. Louis, Mo. This machine is no experiment; it saves time and labor, as many users can and do testify. Over 7000 of them are in use. The introduction of these machines in the South is meeting with success, and some prominent institutions there have ordered them. The company has an Atlanta (Ga.) office in the Equitable Building. Write for book and catalogue.

A. H. Barber Ice Plants.—There is no cessation in the installations of ice and refrigerating plants throughout the country. The leading constructors of the machinery required are obtaining the contracts, among them being the A. H. Barber Manufacturing

Co. of Chicago. This company has filed within the last thirty days orders as follows: Five-ton ice plant and two 80-horsepower boilers at Warrenton, Va.; 10-ton refrigerating machine to take care of eight large storage-rooms for a produce dealer at Pittsburg, Pa.; five-ton ice plant (less boilers) at Alvarado, Texas; three-ton refrigerating machine for cooling milk in a Clarksville (Mo.) dairy; 10-ton refrigerating machine for creamery at St. Paul, Minn., and five-ton refrigerating machine for cooling meat boxes at Elwood, Ind.

Manufacturing Wood Tanks.—Tanks constructed of wood have an extensive use in manufacturing and general industrial activity. Special designs, treatment of woods and superior tank-manufacturing facilities have combined to build up profitable plants for well-known tank makers. Among the prominent tank manufacturers for years was Geo. Woolfolk of Broad and Chestnut streets, Philadelphia. Mr. Woolfolk's business grew so extensive that recently he deemed it advisable to incorporate, and the G. Woolfolk Wood Tank Manufacturing Co. has accordingly been organized. The factory is at Darby, near Philadelphia, and the entire plant is fully equipped with modern machinery and appliances of every character to facilitate production and minimize the cost. Mill and dyers' work is a prominent feature of the Woolfolk product.

New Telephone Fuse.—Manufacturers, installers and users of telephones will be interested to know of a new telephone fuse now being introduced. This fuse resembles the old style, but the fuse wire is enclosed between two pieces of mica, thus preventing possibility of breakage. The wire is loose in middle of fuse, so that it fuses, it is claimed, more accurately than does any other fuse made. The fuse wire, the delicate part of the fuse, is enclosed entirely and protected against damage. The new fuse may be stepped on, stamped on, pushed roughly into place or handled in almost any manner without receiving any damage. If bent into the form of a bow it will go back to its proper place without being damaged. The fuse will fit any standard block and can be furnished in any special design or shape required. It can be supplied in any amperage, either Western Union or Postal style. The American Electric Fuse Co., New York, Chicago and San Francisco, manufactures this new fuse.

Fine Mechanical Tools.—This class of product enters largely into manufacturing and general industrial life, as well as in scientific circles, and the production of such fine mechanical tools is an important process—important because it requires the most perfect equipments of machinery, originality, skilled and extremely careful workmen and management of the highest grade. These requirements are fulfilled by the L. S. Starrett Company of Athol, Mass., manufacturer of steel rules (both English and metric graduations), squares, micrometer gauges, callipers and dividers, bevels, scratch gauges, cut nippers, back saws, steel clamps, levels, steel tapes, plumb bobs and a variety of other unique and popular instruments used by machinists, woodworkers and draughtsmen. The Starrett tools are favorably known throughout the entire world. The company's 280 workmen were last month granted, without solicitation, a nine-hour day at ten hours' pay. This action is worthy of the fairness which L. S. Starrett has always extended to his employees through over a half-century as employer. The Starrett offices in New York are at 126 Liberty street.

TRADE LITERATURE.

The Mechanic.—The Pan-American number of The Mechanic has been issued. This journal, of interest to machine woodworkers, contains, in the June issue, much interesting information of value to the class of manufacturing operators whom it appeals to. Send to the H. B. Smith Machine Co., Smithville, N. J., for copy.

Smith & Hemenway Company.—This is one of the young and enterprising houses in the tool line, and has forged its way forward in the past few years. It is the publisher of one of the most novel catalogues issued. It is known as the "Green Book of Hardware Specialties." A copy of same will be sent free upon application. Address 296 Broadway, New York.

The Leschen Blotter.—A neat hand blotter for desk use is that issued by the A. Leschen & Sons Rope Co. of St. Louis, Mo. The blotter is topped by a celluloid piece with button for readily replacing the blotting sheets as they are used up. A photographic re-

production is shown of the Leschen Patent Aerial Wire-Rope Tramway. This system is most effective and economical.

Roebbling's Wire.—The John A. Roebbling's Sons Company, Trenton, N. J., is giving special notice by card that in future it will seal all its bundles of wires with a wire and lead seal bearing a tag stamped with the company name, the size and quality. This action is taken to prevent substitutions. When buying wire of Roebbling make purchasers should look for the seals and tag or send for card.

Shop Oil Cabinets.—The manufacturing world should become acquainted with the merits of a comparatively new article now being manufactured by S. F. Bowser & Co. of Fort Wayne, Ind. Their product is the Bowser Adjustable Self-Measuring Shop Oil Cabinet, which is a model of convenience, besides economizing on time and reducing fire risks wherever oil is used. Send for booklet of particulars.

Sewing-Machine Transmitter.—The operation of sewing machines by means of electric motors has reached a high state of development. The advantages of operation by electricity are many and are told of in a leaflet issued by the Paragon Fan & Motor Co., 572 First avenue, New York. The company manufactures the Paragon Sewing-Machine Transmitter, which has been installed in some of the largest plants using sewing machines.

For Steam Users.—"Practical Economy for Steam Users" is the title of an illustrated booklet issued by the Clark Bros. Co. of Vicksburg, Mich. This publication tells of the merits of the Clark Regulator Alarm Column. This device is an automatic feed-water regulator, a low-water alarm and a water column in one. Steam users need not be told of the advantages of such a combination, but for a statement as to the perfect efficiency of the Clark device in combining the regulator, alarm and column, send for the booklet mentioned.

Machine-Shop Furniture.—Modern machine-shop furniture fills an important position in facilitating operations in plants of the character referred to. Such furniture, made in iron and steel, gives that modern convenience which is called for nowadays in all walks of life. The New Britain Machine Co. of New Britain, Conn., has just issued a booklet describing its machine-shop furniture. The line embraces fifteen different styles of tool racks in two sizes, four sizes of lathe pans and shop shelving, new lathe rack and oil feeder.

The Gravity Dam.—Manufacturers and others who have at any time need to contract for the construction of dams should be acquainted with the merits of the gravity dam. Dam construction is a work that is most difficult, and those engaged in that field of endeavor must have been taught by experience, foresight and trained judgment. "The Gravity Dam" is the title of a booklet issued by the Beardsley Gravity Dam & Construction Co. of Elkhart, Ind., and it contains most interesting information on its chosen subject. Send for copy if you contemplate building a dam and want to obtain the best possible results at the lowest expenditure and save yearly repair bills in the future.

Steam and Hot-Water Boilers.—The worldwide use of steam and hot water for heating buildings of all kinds has resulted in continued improvements in the boilers and other machinery and equipment needed for the installations of heating plants. The danger of explosion has been abolished, the consumption of fuel has been minimized, and general efficiency, together with first cost, has been improved greatly. The Monitor Steam and Hot-Water Boilers are prominent among the modern equipments in the above-mentioned branch of manufacture. They are built by the Monitor Steam Generator Manufacturing Co. of Landisville, Pa., with offices in Baltimore (U. J. Bossler, Brewster's Exchange, being manager), Philadelphia, Pittsburg and Reading. Literature of full explanation is now ready for inquirers.

Lanterns of Every Kind.—Oil lamps and lanterns have entered into use the world over, and their manufacturers have constantly aimed to increase their efficiency and general usefulness. Both stationary and portable oil lanterns will doubtless continue to be demanded in large numbers for all time. The R. E. Dietz Co., New York, Chicago and London, is probably the oldest lamp and lantern manufacturing concern in the world, having been in existence for over sixty years, and Dietz has come to be almost synonymous with the term "best lanterns."

The Dietz tubular lanterns, street lamps, driving lamps, automobile lamps, bicycle lamps, locomotive headlights, commercial, railroad and other lanterns are illustrated and described in the company's 1901 catalogue. Send for copy, addressing 60 Lighthouse street, New York.

Fuel Oil for Boilers.—A timely publication is that showing the most modern and practical appliances for the storage and burning of fuel oil under boilers. Illustrations are given of plants in actual operation, many of them in the largest and best-known manufacturing works, as well as in various departments of the United States and other governments. The design of these equipments is the result of many years' experience in the use of fuel oil in nearly every class of heating, and they are made from the best material in the most thorough manner. The Rockwell Engineering Co., 26 Cortlandt street, New York, manufactures and installs the oil-fuel burning appliances mentioned and guarantees equipments to properly perform the service for which they are intended. The company builds furnaces for all purposes, to be operated with oil or other fuel, making special designs when necessary. Send for catalogue B.

Advantages of Mechanical Draft.—In the Engineering Record of May 18 Henry C. Meyer, Jr., states that "draft produced by fans possesses many advantages over chimneys as ordinarily proportioned. Probably the greatest of these is its flexibility, it being possible to regulate the speed of fan so that proper rate of combustion for amount of steam required is maintained entirely independent of weather conditions. Another important advantage is ability of fans to create much greater draft than is possible with a chimney. Steam engines for driving fans are frequently fitted with valves to govern the speed of engine according as the boiler-pressure varies, increasing it as the pressure falls and reducing it as it rises above normal. Mechanical draft enables economizers to be placed in the flue and reduce the temperature of the escaping gases by heating the feed-water far below the temperature that is necessary in a chimney to create a draft. The reduction in draft due to the use of economizers is a much greater percentage of the available draft with a chimney than it is of the draft where fans are employed. Again, the greater draft of fans enables cheap low-grade fuels to be burned that could not easily be used with chimney draft, and the saving that these fuels brings about in some localities is a very considerable sum of money. Still another point in favor of mechanical draft lies in the portability of the fans in case a change of location is desired."

Railway Economics.—The problem of how to increase the earnings of freight equipment often engages the attention of railway managers. The subject is one that usually needs very careful thought and much discussion before any decisive steps are taken, especially where large expenditures may be necessary before it is possible to positively know that a commensurate return will be received. Railway companies have for their main object, briefly told, to deliver freight and passengers in a safe, economical and expeditious manner. Yet this seemingly simple result has not been accomplished, according to the results shown by a publication in a prominent steam-railway journal last December. The results were summed up in the statement that "equipment costing millions of dollars, built for the express purpose of carrying freight, moves two hours per car per day and stands twenty-two hours per car per day." This is evidently the result of railway patrons using freight cars as storehouses, and shippers continue to clamor for "empties," and the railway company continues to order additional cars to meet these demands. In order to keep equipment moving it is advocated that three things are essential—proper terminals, comprehensive traffic rules clearly understood and enforced, and equipment capable of discharging its load instantly under all conditions. Any manager of freight traffic who is interested in the foregoing trend of thought in the direction of increasing the earnings of freight equipments should read "Railway Economics," by F. S. Ingoldsbey, Chemical Building, St. Louis, Mo. Prompt applicants can be furnished gratis.

The business men of Wilmington, N. C., are considering the formation of a company to operate a line of steamships between that city and New York. The company is to be capitalized at \$100,000. J. A. Arringdale and J. Allen Taylor are mentioned as among those interested.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

FINANCING FOR LONDON.

The Maryland Trust Co. Extends Its Operations.

An official of the Maryland Trust Co. of Baltimore confirms the report that it has become interested in what is known as the Metropolitan District Electric Traction Co. of London, controlling the Metropolitan underground railway, one of the most important systems of the British metropolis. The Maryland Trust Co., while becoming financial agent, is associated in the control of the system with Mr. Charles T. Yerkes of Chicago. The Metropolitan District Company has been formed to rebuild the system for the use of electric motors. It controls about twenty-six miles of double track and several suburban branches. The estimated cost of the improvements is \$5,000,000.

An interesting feature of the undertaking is the confidence which has been reposed by the English capitalists practically owning the Metropolitan system in Mr. Yerkes, who proposes to devote himself to carrying out this scheme. It has been unnecessary to arrange any issue of securities in this country to pay for the cost of the improvement, although it will probably be carried out by American contractors. The plan proposed by the Americans was taken up at the recent meeting, at which Mr. Yerkes was probably the only American present, and the agreement ratified without a dissenting vote on the part of the stockholders and directors.

The part taken by the Maryland Trust Co. is the outcome of a trip taken by Col. J. Wilcox Brown, president of the company, to London during the past winter. He became interested in the subject, and a thorough investigation was made for him by electrical experts of the highest standing. Meeting Mr. Yerkes after his return to this country, he was invited to become associated with him in the enterprise, and the relations between Mr. Yerkes and the Maryland Trust Co. are very close.

To Do Business in Mexico.

The United States & Mexican Trust Co., which is being organized by Mr. A. E. Stilwell, president of the Kansas City, Mexico & Orient Railroad Co., and others, will have its principal office in the City of Mexico, with branches in New York, Chicago, Kansas City, also London and Amsterdam. It is stated that the authorized capital stock is \$2,500,000. The company has obtained authority from the Mexican government to do a general banking and trust business in the Mexican republic. Mr. Stilwell is president; Thomas B. Scott of Chicago, vice-president, and T. L. Chadbourne, also of Chicago, general counsel.

Mississippi Redeems Bonds.

Gov. A. H. Longino of Mississippi has by proclamation called in \$400,000 of 5 per cent. Mississippi State bonds, series B. The bonds were sold on July 1, 1896. The State reserved the right to redeem them at the expiration of five years. The governor announces that the State is ready to pay them in full, with accrued interest, and it is stated that their retirement will save the taxpayers \$100,000 in interest. The Jackson correspondent

of the New Orleans Picayune points to this ability of Mississippi to anticipate her obligations as a source of gratification to the people of the State and to its administration.

New Corporations.

J. E. Foster and others are interested in a plan to open a bank at Jefferson, N. C.

The Monroe County Exchange Bank has been formed at Holliday, Mo., with \$10,000 capital stock.

The Safety Investment Co. has been formed at Maysville, Ky., by E. P. Browning and others.

The Llano National Bank has been authorized to begin business at Llano, Texas, with \$25,000 capital stock.

G. F. Woodward and E. T. Booth are interested in the Bank of Bishopville, recently organized at Bishopville, S. C.

J. S. Edmiston has been elected president of the Bank of Prairie Grove, Ark., recently organized with \$20,000 capital stock.

The Elm Loan and Savings Association has been formed at Baltimore by George Riehl, Jacob Hughes and others and capitalized at \$300,000.

D. B. Davidson of Kaufman, Texas, is interested in the First National Bank, recently organized at Kemp, Texas, with \$25,000 capital stock.

Arrangements have been made to open a bank at Mt. Savage, Md., with \$25,000 capital stock. Among those interested are James Findlay and A. B. Turner.

The Hunter-Phelan Savings Co. of Fort Worth, Texas, has been organized, with \$100,000 capital stock, by J. Burnett Collins, John C. Phelan and others.

The Citizens' Bank is the title of the new corporation at Bessemer, Ala., capitalized at \$50,000. Among those interested are Jefferson Clay and J. P. Clay.

George W. Fouke has been elected president of the Merchants and Planters' Bank, recently organized at Texarkana, Ark. B. M. Foreman is vice-president, and O. Turner, secretary and treasurer.

A dispatch from Birmingham, Ala., states that Chicago parties are interested in the organization of another national bank in Birmingham. Jonas Schwab of Birmingham is reported as one of the promoters.

New Securities.

The city of Paris, Mo., has decided to issue \$20,000 in improvement bonds. The mayor may be addressed.

The town of Clarksville, W. Va., has voted in favor of issuing \$40,000 in 4 per cent. improvement bonds. Address the mayor.

Messrs. F. R. Fulton & Co. of Chicago have purchased the issue of \$70,000 of 5 per cent. bonds of Sunflower county, Mississippi, paying 102.28.

On July 2 an election will be held at Bay City, Texas, to decide the question of issuing \$40,000 in bonds for improvements. Address the mayor.

F. M. Stafford & Co. of Chattanooga, Tenn., have purchased the issue of \$40,000 in bonds of Gastonia, N. C., at an interest basis of 4 1/2 per cent.

The school district of Mount Calm, Texas, has voted in favor of issuing \$6500 in bonds. The school board may be addressed at the town referred to.

Allen county, Kentucky, has decided to issue \$170,000 in refunding bonds bearing interest at 4 per cent. The Fiscal Court may be addressed at Scottsville.

The proposed issue of \$25,000 in 4 per cent. bonds of Albany, Ga., will be decided upon at an election to be held June 19. The mayor may be addressed.

The stockholders of the Maryland National Bank of Baltimore have ratified

the decision of the directors to increase the capital from \$200,000 to \$300,000.

The Merchants and Farmers' Bank of Portsmouth, Va., has purchased the issue of \$11,500 of 4 per cent. improvement bonds of this city, paying 100.51.

St. Bernard parish, Louisiana, has voted in favor of issuing \$10,000 in 5 per cent. road bonds. The board of commissioners may be addressed at St. Bernard.

It is announced that the issue of \$25,000 in improvement bonds of Selma, Ala., remains unsold, and may be placed on the market in the near future. Address the mayor.

Bids will be received until June 20 for the issue of \$300,000 in bonds of Houston, Texas. The bonds will bear 4 per cent. interest. J. D. Woolford, mayor, may be addressed.

An election will be held on June 20 by the Velasco (Texas) school district relative to an issue of \$60,000 in bonds. The school board may be addressed at the town of this name.

An election will be held at Saluda, S. C., on June 14 to decide the question of issuing \$12,000 in bonds for railroad purposes. J. W. Pitts, town clerk, will give further information.

J. P. Byrne, city recorder, may be addressed relative to subscriptions for \$150,000 in 4 per cent. improvement bonds of Nashville, Tenn. It is stated that no bids will be received under 110.915.

There is a possibility that the total issue of bonds proposed by the town of Rock Hill, S. C., will be \$95,000. They will be placed on the market for improvements. The mayor may be addressed.

The total issue of bonds proposed by the city of Beaumont, Texas, amounts to \$115,000, and it is announced that they will be placed on the market about July 15. The mayor will give further details.

It is stated that the issue of \$25,000 in 3 per cent. bonds of Mingo county, West Virginia, have not been sold, and will again be placed on the market. The board of commissioners may be addressed at Williamson, W. Va.

Financial Notes.

The Georgia Bankers' Association, in session at Old Point, Va., elected P. E. May of Atlanta, president; S. B. Bowen of Atlanta, F. D. Bloodworth of Atlanta, Miller S. Bell of Savannah and R. A. Graves, vice-presidents; S. B. Hillyer of Macon, secretary, and G. H. Plaitt of Macon, treasurer.

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending June 11.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	93	93
Alken Mfg. Co. (S. C.)	92	95 1/2
American Spinning Co. (S. C.)	102	102
Anderson Cotton Mills (S. C.)	129	129
Arcade Cotton Mills (S. C.)	100	100
Arkwright Mills (S. C.)	120	120
Augusta Factory (Ga.)	81 1/2	81 1/2
Avondale Mills (Ala.)	80	100
Belton Mills (S. C.)	103 1/2	100
Bennettsville Mfg. Co. (S. C.)	100	100
Cabarrus Cotton Mills (N. C.)	148	155
Clifton Mfg. Co. (S. C.)	175	185
Clinton Cotton Mills (S. C.)	120	116
Courtenay Mfg. Co. (S. C.)	90	102
Dallas Mfg. Co. (Ala.)	90	102
Darlington Mfg. Co. (S. C.)	97	100
Eagle & Phenix Mills (Ga.)	100	116 1/2
Enoree Mfg. Co. (S. C.)	114	103
Enterprise Mfg. Co. (Ga.)	100	103
F. W. Poe Mfg. Co. (S. C.)	114	118 1/2
Gaffney Mfg. Co. (S. C.)	113 1/2	113 1/2
Granby Cotton Mills (S. C.)	102	107 1/2
Granby Cotton Mills (S. C.) 1st Pfd.	103	103
Graniteville Mfg. Co. (S. C.)	163	167
Greenwood Cotton Mills (S. C.)	98	102 1/2
Grendel Mills (S. C.)	100	105
Henderson Cotton Mills (N. C.)	120	125
Henrietta Mills (N. C.)	200	206
John P. King Mfg. Co. (Ga.)	102	102
Langley Mfg. Co. (S. C.)	112 1/2	112 1/2
Laurens Cotton Mills (S. C.)	140	148
Lockhart Mills (S. C.)	101	106
Loray Mills (N. C.)	92	92
Louise Mills (N. C.)	100	104
Lynchburg Cotton Mills (Va.)	125	130
Lynchburg Cotton Mills (Va.) Pfd.	145	150
Manchester Cotton Mills (S. C.)	115	116 1/2
Mayo Mills (N. C.)	130	130
McColl Mfg. Co. (S. C.)	118	118
Newberry Cotton Mills (S. C.)	115	122
Odell Mfg. Co. (N. C.)	104	108 1/2

TABLE OF CONTENTS.

EDITORIAL:	Page.
President Fish's Letter	282
Workmen a Factor in Competition	282
Protection in Reciprocity	282
Cotton Goods Exports	284
Chance and Texas Oil	284

Mississippi: Its Material Development	284
Want Cost of Refinery	286
The Uses of Wealth	286
The Industrial Outlook	287
Coal Output in 1900	287
Boring at Beaumont	287
Oil Notes	287
In the Birmingham District	288
The Pig-Iron Market	288
Progress at Elkins	288

FOREIGN TRADE:	
Orders for South America	288
Commerce of Gulf Ports	288
Increased Vessel Service	288
To Deepen Suez Canal	288
Notes	288
For the Coasting Trade	288

TEXTILES:	
Electrically-Driven Cotton Mill (Illus.)	288
Cotton in Hungary	289
Another Mill at Huntsville	289
A \$20,000 Knitting Mill	289
Textile Notes	289
Quotations of Cotton Yarns	289

RAILROADS:	
Dothan, Hartford & Florida	289
New Line in Missouri	289
Gulf & Interstate	289
Mobile, Jackson & Kansas City	289
Chicago, Rock Island & Pacific	289
Railroad Notes	289

COTTONSEED OIL:	
Cottonseed-Oil Notes	289

PHOSPHATES:	
Big Fertilizer Works at Atlanta	291
Phosphate Markets	291
Phosphate and Fertilizer Notes	291

LUMBER:	
Lumber Market Reviews:	
Baltimore	291
Charleston	291
Savannah	291
Mobile	291
Memphis	292
Beaumont	292
Lumber Notes	292

MECHANICAL:	
Helmtz Apparatus in Sugar-House (Ill.)	293
Extremes in Mill Cogs (Illus.)	293
Fairbanks Valves (Illus.)	293
The Steam Nigger (Illus.)	294
The Draper Company's Plant (Illus.)	295
Three-Pulley Drive in Attrition Mills (Illus.)	295
New Desk Lamp (Illus.)	295

CONSTRUCTION DEPARTMENT:	
New Enterprises	295
Building Notes	295
Railroad Construction	299
Machinery Wanted	400
Trade Notes	400
Trade Literature	401

FINANCIAL NEWS:	
Financing for London	402
To Do Business in Mexico	402
Mississippi Redeems Bonds	402
New Corporations	402
New Securities	402
Financial Notes	402
Southern Cotton-Mill Stocks	402

Orr Cotton Mills (S. C.)	100	103 1/2
Pacolet Mfg. Co. (S. C.)	209	209
Pelzer Mfg. Co. (S. C.)	173	182
Piedmont Mfg. Co. (S. C.)	185	185
Raleigh Cotton Mills (N. C.)	115	115
Richland Cotton Mills (S. C.)	103	110
Richland Cotton Mills (S. C.) Pfd.	101	105
Rossmore Mills (N. C.)	101	101
Sibley Mfg. Co. (Ga.)	81	81
Southern Cotton Mills (N. C.)	97	100 1/2
Spartan Mills (S. C.)	130	140
Trion Mfg. Co. (Ga.)	125	125
Tucpau Mills Co. (S. C.)	120	120
Union Cotton Mills (S. C.)	135	150
Union Cotton Mills (S. C.) Pfd.	100	105
Victor Mfg. Co. (S. C.)	102	106 1/2
Warren Mfg. Co. (S. C.)	90	90
Warren Mfg. Co. (S. C.) Pfd.	105	105
Whitney Mfg. Co. (S. C.)	105	105
Wilmington Cot. Mills (N. C.) Pfd.	100	105
Wiscasset Mills (N. C.)	115	115

The woodworking industry near Crossville, Tenn., is at present showing considerable activity. Puckett Bros. of Lansing, Morgan county, are preparing to put in a saw-mill at Pearline. William Smith of Coassee, Ind., will also build a mill four miles east of Crossville, and will also erect a mill near depot in the town to work his lumber into spokes for shipment. Two stave plants are being put in at Mayland, and the Standard Oil Co. is preparing to put in a third.